

S. HRG. 111-682

OREGON FORESTS

HEARING BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS AND FORESTS OF THE COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

TO

RECEIVE TESTIMONY ON S. 2895, TO RESTORE FOREST LANDSCAPES,
PROTECT OLD GROWTH FORESTS, AND MANAGE NATIONAL FORESTS
IN THE EASTSIDE FORESTS OF THE STATE OF OREGON, AND FOR
OTHER PURPOSES

BEND, OR, JUNE 4, 2010



Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE

61-825 PDF

WASHINGTON : 2010

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OREGON FORESTS

FRIDAY, JUNE 4, 2010

U.S. SENATE,
SUBCOMMITTEE ON PUBLIC LANDS AND FORESTS,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Bend, OR.

The subcommittee met, pursuant to notice, at 1 p.m. in the Barnes Room of the Deschutes Public Services Center Building, 1300 NW Wall Street, Bend, Oregon, Hon. Ron Wyden presiding.

STATEMENT OF ALAN UNGER, DESCHUTES COUNTY COMMISSIONER

Mr. UNGER. Hello, my name is Alan Unger, your Deschutes County Commissioner. I'd like to welcome Senator Ron Wyden to Central Oregon. I want to thank Ron for bringing the U.S. Senate Subcommittee on Public Lands and Forests to the heart of the area affected by this legislation. Eighty percent of Deschutes County is in public ownership. We need a Federal solution that all in Oregon will benefit from.

Senator, your bipartisan approach that brings all to the table to find a solution is an example to all in Washington. It's a formula for success and we all benefit by your leadership.

Welcome to Central Oregon.

OPENING STATEMENT OF HON. RON WYDEN, U.S. SENATOR FROM OREGON

Senator WYDEN. Alan, thank you very much for that really gracious introduction, and to all of you for giving up some time on a gorgeous Friday afternoon to come on out, and really appreciate it. I think you're going to feel that this is, particularly listening to all of the folks who are going to testify today, this is the way you ought to try to move forward on major issues, where folks are working together and trying to reach out and find common ground.

So with that, we will bring the subcommittee to order this afternoon. The Senate Subcommittee on Public Lands and Forests is meeting in beautiful Bend, Oregon.

This week, folks, has been all about jobs. I started it off at a bio-refinery in Boardman. They're talking about 250 good paying jobs there, it is going to be a cellulosic ethanol facility. Eventually we think it's going to grow into a major biomass plant, because it bumps right up against the Umatilla National Forest. So this is an opportunity to create greener, better jobs for the future, and that's how we started the week.

After that, we went next to Shepherds Flat, which is of course in Eastern Oregon, where there's going to be a new windmill project, possibly the largest windmill project in the world in Eastern Oregon, not in the United States, but in the world, another huge shot in the arm for the Oregon economy. The Oregon Congressional delegation there had a big challenge trying to deal with the Defense Department. It was a challenge, largely because they'd never had to deal with these kinds of issues in the past, and we made the case that this country could have both national security and energy security, and we were able to get that approved.

Yesterday, as you may have seen, the Oregon Congressional delegation was in Newport, on the Oregon coast, where we announced that the government has entered into a final determination that Newport is the best place for a major research facility, 175 new jobs in Newport. Nobody thought Oregon could pull that off, either. They scoffed at us when they thought that little David in the Oregon coast area could take on the Goliath up north. I said people who thought we could win on the Oregon coast, they were probably just folks who were a few fish short of their limit. Yet, once again, Oregon prevailed.

So, that's how we started this week, and today we're going to turn to the question of trying to do the same kind of cooperative effort, this time in the forestry sector, building a partnership between the private sector, State officials, local officials, and of course, the Federal Government.

So the task today is to look at how to create new good-paying jobs in the woods, and particularly with a focus on eastern and central Oregon. My view is, we've got a lot to work with, because of the supportive coalition that has come together for this legislation, a coalition that this State has not seen in more than two decades of debating where to go in the forestry area. We now have support, through this coalition, from timber groups, such as the American Forest Resources Council, the Logging Company, Boise-Cascade, and our own John Shelk of Ochoco, here in Central Oregon. Environmental groups, Defenders of Wildlife, the National Center for Conservation Science and Policy, and Pacific Rivers Council, all join this effort as well, from the environmental community.

So today we're going to get testimony on the legislation, S. 2895, that these groups have all come together that is—behind to get saw logs to the mills, restore and create jobs, get the forest healthy again, and protect our treasured old growth.

I'm very pleased that Senator Merkley has already signed on as a co-sponsor of this legislation, and it's my intent to work very closely with the entire Oregon Congressional delegation to get this legislation passed in this Congress.

Many of you know that folks worked on this bill for many, many months, and to get the coalition that we announced last December, to have timber executives standing shoulder to shoulder with leaders of the Oregon environmental community, everyone had to say it was time to break the gridlock. With each passing month, this group recognized that the failure to address the needs of Oregon's increasingly unhealthy forest meant that they grow more and more at risk, at risk of preventable fire, insect infestation, and disease.

My own take about this debate that has gone on for decades, is that each side in the timber wars has now armed itself politically, so that they are sufficiently muscled to survive, but never quite in a position to succeed. So as a result, we've got millions of acres of choked at-risk Federal forests in desperate need of management. Millions of acres of old growth are now in danger of dying from disease, insects, or fire, while the infrastructure of forestry, our mills and our loggers, and the jobs that go with them, have been walking on an economic tightrope with an uncertain future.

My own view is, unless there are fundamental changes, economic and environmental dangers that result from the lack of attention to these issues is going to grow in the years ahead. The fact is, in Eastern Oregon, there are now only a handful of mills remaining. Unless there is greater certainty of timber supply and an immediate increase in merchantable timber, more mills are going to close. If that happens, eastside forests and the communities that depend on them, pay a huge price. Oregon's eastside forests need every mill left, because without the mills to restore the old process to saw logs and other merchantable material from forest restoration projects, you can't have restoration of the eastside forests. That's what we're trying to fix in this hearing today.

Looking out at folks, and I see them in the first few rows, some of the witnesses, I can remember them going at it year after year after year, fighting each other, you know, nonstop, and can now see that they're coming together to protect our forests, communities, jobs, and mills. It's my view that looking at these folks just in the first few rows, there's real reason to be hopeful about turning things around in the woods.

The work of this coalition, by the way, is not just going to be good for the Federal lands, but will also be good for the land owners on the private lands that are impacted by fire, insect, and disease. The point of this legislation is to help make the Federal forests good neighbors to all the private land owners. The bill would provide an immediate supply of logs in the short-term to jumpstart restoration efforts and keep the mills alive. Obviously, job one has to be saving the remaining mills and loggers, the infrastructure of forestry, and at the same time, looking over the long term to provide the certainty required to restore each of the 6 eastside national forests.

Nobody thinks that this road is just going to be immediately cleared out of political challenges. For this reason, we have come together as a coalition to make sure that we're going to address some of the key points of consensus. In this coalition, it's very clear that you have to have adequate Federal funding to properly manage and restore the forests to their health. So this coalition is going to join me and other Members of the Congressional delegation to secure the funding that is needed to manage our forests.

I'm also pleased that the administration included, at my request, \$50 million in the budget to support the kind of collaborative projects we envision through the Priority Job Stabilization and Watershed Initiative.

We're going to go to our first panel of witnesses now, but a couple of administrative chores. A lot of folks have been trying to figure out whether this is another one of our town hall meetings. It

is not a town hall meeting, only because it's important that we get an official hearing of the subcommittee on the record in Central Oregon. Many of you know I've had more than 550 town hall meetings over my time, representing and the U.S. Senate. We will have plenty of them in the days ahead. This is an opportunity for a formal subcommittee hearing. We're going to take testimony from witnesses, and we also want folks who would like to submit written testimony for the hearing record, can do so by sending it to the subcommittee in Washington or to one of our offices here in Oregon. We also have 3 of the best staffers in the solar system here. We have Michelle, we have Frank, and we have Scott, they're all very good. Feel free to call them nights and weekends, take all their free time.

[Laughter.]

Senator WYDEN. They're outstanding public servants and really appreciate all 3 of them coming out.

So, let's go right to our witnesses. Michael Carrier is here from the Governor's Office, the Honorable Mark Webb of Grant County is here, from Canyon City, and the Honorable Stanley Smith, representing the Confederated Tribes. If all 3 of you will come forward, we can get started. We really appreciate everybody coming. I'm going to make your prepared remarks a part of the hearing record in their entirety. Why don't you just take maybe 5 minutes or so and summarize your principle concerns.

Let's begin with you, Mr. Carrier.

**STATEMENT OF MICHAEL CARRIER, NATURAL RESOURCES
POLICY DIRECTOR, OFFICE OF THE GOVERNOR, SALEM, OR**

Mr. CARRIER. Senator, thank you so much for introducing S. 2895 and for holding this hearing today. Thank you especially for the opportunity to offer testimony in support of S. 2895.

Governor Ted Kulongoski has offered his strong support for your legislation, and my testimony today is offered in his behalf.

With half of Oregon in Federal ownership and half of that ownership in forest land, the subject of this bill is highest importance to the Governor, and it has been so important to him for the past 8 years, that several years ago he asked our State Board of Forestry to start advising him on how the State could assist in increasing the capacity to improve management of our Federal lands.

The State Board of Forestry created a body called the Federal Forest Advisory Committee made up of a diverse number of agencies, Federal, State, staff, and other stakeholders. They published a report over a year ago with a suite of recommendations and findings. I want to summarize those because I wanted to get them into the record because they build the case that you just built in your introductory remarks about why this legislation is so important to Oregon and why it's in Oregon's interest to support this.

But the committee identified 2 major categories of problems that our Federal forest lands face in Oregon today, problems of place and overarching problems. The first category, the problems of place, generally describe the issues and problems associated with the resource itself and the landscape on which it's located. The second, the overarching problems, talk about the policy and legacy management issues and problems.

With regard to the problems of place, of course forest health was the No. 1 problem. Forest health and resiliency has declined, they have declined in Oregon's Federal forests. Aerial surveys conducted by the Forest Service Center, our own Department of Forestry showed dramatic upward trend in insect damage in the last 10 years alone, and included in my testimony, I think available to you are some slides, eight slides in color, that amplify the remarks that I'm going to offer.

The 2008 survey showed almost a million acres of forest land damaged by bark beetle, defoliators, and sap feeding insects. In Eastern Oregon alone, more than half a million acres have been damaged by mountain pine bark beetle. There are an estimate 11 million of overstock forest land in Oregon, outside of wilderness and roadless areas that have missed fire cycles and now are in moderate to severe danger of losing key ecological functions due to uncharacteristic wildfires.

The second category, second area under the problems of place is reduced timber harvest, you mentioned this, especially off of Federal lands. This has led to a decline in the forest industry, in the infrastructure, as you stated. The intended consequence is social losses to our rural communities, including receipts from timber use to support roads and schools.

The Forest Service manages almost three-fourths of the timberland in eastern Oregon. This is a near monopoly. We can't do without this resource and without its contribution to our economy here. Without those Federal timber harvests, private forestland owners, as you mentioned, will lose access to competitive timber markets and may convert their land to other uses.

Oregon, as you said, is losing the infrastructure on the east side, and we need that infrastructure to continue properly managing these eastern forests. Between 1990 and 2008, we lost 38 mills in eastern Oregon alone. In 2009, we were down to eight saw mills and two plywood mills in eastern Oregon. Since 1990, unemployment rates in the timber-dependant communities of eastern Oregon have dramatically exceeded the State average. In August 2009, unemployment in eastern Oregon was greater than 10 percent in most counties and exceeded 15 percent in 6 counties, and approached 20 percent in 2 counties.

Then the last subcategory of the problems of place is the desired amount of older forest, which your bill very succinctly addresses. The amount forest on Federal lands, older forest on Federal lands, needs to be established and protected as a component of sustainable forest management. We've had a 16 percent decline in the amount of large ponderosa pine, greater than 21 inches, since 2001. Think of that. In the last 9 years, a 16 percent decline, largely a function of mortality caused by insects, fire, and crowding in overstocked stands.

Now with regard to the second major category, the overarching problems, there are 4 things the committee identified, law, policies, and court decisions that govern Federal forest lands have created a set of discordant goals. We need to correct those and align them. Second, forest management in the past had changing public values, lack of clear widely accepted goals today, repeated court challenges, and the inability to implement decisions have eroded trust and con-

fidence in our ability to get the job done. Third, Federal, State, local, and travel governments lack an effective process to collaborate and coordinate policy, which again, your bill addresses. Finally, funding is not adequate.

I've included with my testimony, and put into the record, a recent report from the Oregon Forest Resource Institute, called Federal Forest Land in Oregon.

I'll wrap up here, Scott.

I hope you have an opportunity, along with the subcommittee, to look at that report, because it very succinctly describes the findings that our advisory committee arrived at.

I just want to say that in so many ways, your bill, S. 2895, addresses all of the issues and problems that I've identified in my testimony.

In conclusion, I would say it does correctly approach this problem State by State. I know there's been some concern about that, particularly within the Forest Service. In recognition that the magnitude of this problem of our Federal forest lands and the crisis that it represents is beyond our capacity to fund and manage a single initiative nationwide. Your bill strives to address these problems, beginning in Oregon where I think we can be a model for the rest of the Nation on how to get it right.

Senator, thank you.

[The prepared statement of Mr. Carrier follows:]

PREPARED STATEMENT OF MICHAEL CARRIER, NATURAL RESOURCES POLICY
DIRECTOR, OFFICE OF THE GOVERNOR, SALEM, OR

Thank you for the opportunity to offer testimony in support of S. 2895, the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act of 2009. Governor Ted Kulongoski has offered his strong support for this bill and my testimony is offered in his behalf. With half of Oregon in federal ownership and half of that ownership in forestland, the subject of this bill is of highest importance to the Governor.

In October of 2004 Governor Kulongoski directed the Oregon State Board of Forestry to "create a unified vision of how federal lands should contribute" to the sustainability of Oregon's forests. The Board created the Federal Forestlands Advisory Committee (FFAC) to accomplish this task. The FFAC included board members from natural resources agencies, Forest Service and Bureau of Land Management staff, members of the conservation community, leaders in the forest industry, local government officials as well as representatives of labor, tribes and other interests. The FFAC held numerous meetings to engage the public, government officials, and the scientific community; collect information; review pertinent documents; discuss concerns and ideas; and formulate solutions. Their final report offers a number of consensus-based recommendations to improve the sustainability of Oregon's federal forestlands.

The FFAC quickly identified many of the same problems that S. 2895 seeks to address. These problems were divided into two broad categories; Problems of Place and Overarching Problems. The first category generally describes issues and problems with the forest resource itself whereas the second category addresses policy and legacy management issues and problems.

The most pressing Problems of Place include:

1. Forest health and resiliency have declined in Oregon's federal forests. Specific problems vary, depending on the type and location of forests. The manifestations of degraded forest health are most extreme in the dry forest types (eastern and southwestern Oregon) where overstocked forest stands have resulted in unprecedented landscape-scale problems like uncharacteristic wildfire and insect epidemics that may result in the loss of key ecological components.

Aerial surveys conducted by the USFS and Oregon Department of Forestry (ODF) show a dramatic upward trend in insect damage over the last 10 years.

(Slides 1 and 2).^{*} The 2008 surveys show almost a million acres of forestland damaged by bark beetles, defoliators, and sap-feeding insects. In eastern Oregon more than half a million acres were damaged by the mountain pine beetle alone.

There are an estimated 11 million acres of over-stocked national forest lands in Oregon—outside of wilderness and roadless areas—that have missed fire cycles and are in moderate to severe danger of losing key ecological functions due to uncharacteristic wildfires. (Slide 3). The Nature Conservancy estimates that federal managers need to increase treatment rates nearly fivefold in Oregon over the next 20-25 years to address this issue.

2. Reduced timber harvest from federal forestlands has led to a decline in forest industry infrastructure, with unintended economic and social losses to rural communities, including receipts from timber used to support roads and schools. (Slide 4)

The Forest Service manages almost three-fourths of the timberland in eastern Oregon. This is a near monopoly. Without federal timber harvests, private forestland owners will lose access to competitive timber markets and may convert their land to other uses (Slide 5). Timber harvest from Forest Service lands in eastern Oregon are about 10 percent of what they were historically. For example, annual timber harvest in the Blue Mountains has averaged less than 50 million board feet for the last 10 years, while between 1962 and 1991 it exceeded 537 million board feet.

Oregon is losing the infrastructure needed to manage the forests in eastern Oregon. Between 1990 and 2008, 38 mills closed in eastern Oregon. In 2009, we were down to eight saw mills and two plywood mills buying logs in eastern Oregon. Without this infrastructure the cost of treatments for practices like fuel reduction will be much more expensive to accomplish. (Slide 6).

Since 1990 unemployment rates in the timber dependent communities of eastern Oregon have dramatically exceeded the state average. In August of 2009, unemployment in eastern Oregon was greater than 10 percent in most counties, exceeded 15 percent in six counties, and approached 20 percent in two counties. (Slides 7 and 8).

3. The desired amount of older forests on federal forestlands needs to be established and protected as a component of sustainable forest management. A well-balanced program of forest management activities is necessary to maintain the mix of successional stages and vegetation conditions that provides for the full diversity of habitats and species.

Loss of older forest habitat—Oregon has had a 16 percent decline in the amount of large Ponderosa pine (greater than 21 inch diameter) since 2001. This loss is largely a function of mortality caused by, insects, fire and crowding in overstocked stands. The current strategy of reserves and harvest diameter limits is not achieving the older forest goals. Other options that include active management should be considered.

The Overarching Problems that affect our ability to adequately address the above problems include:

1. Laws, policies, and court decisions that govern federal forestlands have led to a collection of discordant goals and mandates that often work at cross purposes and inhibit agencies from reacting decisively to issues such as declining forest health. This confusion complicates rather than solves the need to integrate social, economic, and environmental values.

2. Past forest management, changing public values, lack of clear, widely-accepted goals, repeated court challenges, and the inability to implement decisions have led to a lack of trust between stakeholders and federal forestland management and regulatory agencies.

3. Federal, state, local and tribal governments lack an effective process to coordinate policy decisions and achieve landscape-scale objectives.

4. Funding is not adequate or appropriately allocated to achieve land management objectives on federal forestlands. Adequate and more stable funding sources are necessary to achieve long-term management goals and sustainability.

A recent special report, *Federal Forestland in Oregon*, published by the Oregon Forest Resources Institute, mirrors the analysis and findings of the FFAC and reinforces its recommendations. Copies of that report are available today for members

^{*}Slides 1–8 have been retained in subcommittee files.

of the Subcommittee and I have submitted an electronic copy to committee staff along with my written testimony.

I have spent quite a bit of time describing the FFAC findings because S. 2895 so closely aligns with those findings. Following are a few examples of that alignment:

Many of the purposes in S. 2895 and the FFAC report are the same and include: creating an immediate, predictable, and increased timber flow; making our forests more resilient to climate change; protecting and restoring old growth forests; expediting actions that achieve ecological and economic benefits; promoting collaboration; streamlining administrative processes; and, restoring the health of forest and aquatic ecosystems.

Both the FFAC report and S. 2895 concentrate on improving forest health as the central theme of action. The FFAC believes that taking action on forest health is of immediate concern and that long-term success solving the forest health problems will require solving related problems (i.e., timber harvest below sustainable levels, decreased infrastructure, continued conflict over the desired amount of older forests, lack of trust, and inadequate policy coordination).

The management approach in S. 2895 mirrors the recommendations in the FFAC Report; i.e., assessing conditions across the landscape and then designing large scale projects to achieve objectives derived from the assessment. Forest health problems cover millions of acres and do not recognize political or ownership boundaries. In this context, the current federal forest planning model, which often approaches management on a 5000 to 10,000 acre scale, does not work well. The problem of scale is just one of its deficiencies. Time and process are also factors. The three national forests in the Blue Mountains of Oregon have been working for seven years to update a plan that is intended to last 10 to 15 years, and we are no closer to completion than when we started.

The FFAC recommendations rely heavily on public involvement through local collaborative processes to increase trust and build support for management decisions. S. 2895 provides an expanded role for involvement of local collaborative groups in assessing management needs as well as in designing management projects.

A key FFAC recommendation is to increase funding for management activities. The FFAC concluded that:

Current funding is insufficient to provide basic stewardship of the land and its resources, much less to offer a high level of environmental, economic, social, and cultural benefits. Declining budgets limit the agencies' ability to maintain staff with the expertise required to conduct the services needed to accomplish forest management objectives.

S. 2895 would significantly increase funding for management activities by authorizing \$50 million and allowing for retention of harvest receipts to be applied to additional management. The FFAC Report expresses a real sense of urgency:

What happens on these lands is of vital importance to Oregonians and the Nation. It is also clear that time is not on our side. Unless decisive steps are taken soon, we risk accelerated loss of important habitat for animal and plant species, further degradation of air and water quality, loss of aquatic species, including native fish, and continued decline in community well-being, among other things.

S. 2895 expresses this urgent need to act now, not later.

In conclusion, S. 2895 correctly approaches the problem, state-by-state, in recognition that the magnitude of the national federal forest health crisis is beyond our capacity to fund and manage in a single initiative. And while we must strive to address these problems everywhere they exist, S. 2895 offers a unique opportunity to show the nation a way forward.

Senator WYDEN. Thank you, Mr. Carrier, and we'll have some questions for you in a moment.

That last point that you made is a particularly important one, and these 3 staff folks have been wrestling with this, and I have as well at some length. It's clear when you look at forestry policy, it would be wonderful to be able to just step back and write one bill that would recreate the system so that it worked in every nook and cranny of the land. Regrettably there isn't enough time to do that. In other words, we're looking at the prospect, if you don't take action quickly, of losing all our remaining mills on the east side.

So what we hope to do on this subcommittee is work with Democrats and Republicans to see if we can create what I think appropriately would be called some pilot projects, projects that would be significant in terms of really getting at these questions for an individual State, such as getting saw logs to the mills, a serious thinning effort, protecting our environmental treasures, and at the same time allowing everybody in the country to learn from a relatively small number of pilot projects. We're going to examine that question at some length, but I can tell you, the point you've raised is a point that Michelle, Frank, and Scott have spent a lot of time on and we've had an extensive conversation with the Obama administration on this as well.

I want to go right to Judge Webb, but I just—before you start, Judge Webb, I just want to say how proud we were of the resonance of Grant County earlier this year for the rejection of hatred in your community. I know the Aryan Nations, the neo-Nazi group—let's have a round of applause for Judge Webb.

[Applause.]

Senator WYDEN. His community rose as one to rally against hatred, and Judge, you can see that you certainly have our affection and esteem for doing it.

So, we'll make your prepared remarks part of the record, and you proceed as you would like.

STATEMENT OF HON. MARK WEBB, GRANT COUNTY JUDGE

Judge WEBB. I do want to thank you for the opportunity to comment on S. 2895, especially as I and some of the other residents in my county have some concerns, so I do appreciate that.

There's no doubt, as Mr. Carrier said, that something needs to be done, both in terms of forest health and community health. I actually think that putting ecological resilience front and center, like this bill attempts to do, is exactly the right course to take. I actually think that if you did that, you might be in a position to rewrite more the legislation, like you talked about, with something that would quite centrally apply across the board, but that would be a fuller discussion.

Nevertheless, I do have serious concerns about the legislation in its current form. In particular, and this comes out of a context for the last 3 years being in county government, before that being a contractor in the woods. I've evaluated, thought about this legislation, in terms of litigation. I actually think that, in addition to funding shortfalls, that litigation is the critical challenge facing Federal forest land management. My concern, and the concern to many of my constituents, is that this bill not only doesn't address that, it probably will strengthen the ability of individuals to litigate and shut down projects, that's our concern.

So, I'll just read now some prepared statements. Past management practices, generally sanctioned by Congress and informed by the best available science of the time have compromised the health of federally managed lands in various ways, and the timber industry has been partner to this. But again, science, Congress, industry, we've got a past history there that we need to correct. However, litigation, particularly by environmentalists, over the last couple decades, coupled with its resulting lack of active management, has

brought many of these lands to the brink of ecological disaster. Frankly, given where they started, we're in a far worse condition now than we were when we were logging. Unfortunately, S. 2895 not only fails to address this critical challenge, but will arguably strengthen it.

I say this because while S. 2895 is strongly supported by some environmental organizations, but only some, this support reflects, at least in large part, a compromise position that is arguably purchased at the cost of additional, far-reaching protections. The bill introduces a new level of protection, new types of protection over existing protections that the Forest Service has to deal with. As a result, if passed, the bill will require the Forest Service to undergo even more regulatory and bureaucratic challenges as they attempt to implement the types of projects described in the bill. The new protections, with the bill's associated language, will provide new and ripe opportunities for litigation and strengthen the hand of environmentalists who are already so adept at litigating, who do not support this bill, and many do not, and who remain in principle opposed to responsible management on Federal lands, and many of these groups do remain opposed in principle to active management on Federal land, particularly when it has a commercial component. This is a bad mix, and it's one that the bill will empower.

So just in brief, rather than going through all the other stuff I talked about in my written comments, I'd say this, S. 2895 increases the scope and nature of the protections the Forest Service must deal with, but it does not provide the Forest Service with any new authorities. They can already do everything contained in the bill without the legislation, they can do everything in it, and they can do it easier because there are not the additional protections.

As a result, it will make their work even more difficult and costly, but it will make that of environmentalists bent on stopping active management through litigation even more easy. This is a recipe for management failure, and it is why the bill should not be passed as it's currently written.

I just want to stress again, we think you're going in the right direction, but we also think the bill need considerable revamping or it's going to open the Forest Service up to even more litigation, more process, more procedures, and even if you get the promised additional funding, it's not going to be well spent.

So, just to finish, I would like to go back to the comment you made, and I think it is true, people in my community, some of the mills are very supportive of this bill, some of the environmentalists I respect are very supportive of this bill. You said that they've said it's time to break the gridlock, and I would agree, they would agree. My challenge would be this, if they really do believe that, we don't need a new piece of legislation. The Forest Service has the existing authorities it needs to do what's needed on the ground to bring forests back to ecological health, ecological resiliency.

All we need is funding. That's what we should be working on, a different funding structure, different funding sources to fund the work that the forests should, in principle, already be able to do, but cannot do because of all the process, procedure, and litigation.

I'll just leave it at that. That's my main concern, generally speaking, about the bill.

[The prepared statement of Judge Webb follows:]

PREPARED STATEMENT OF HON. MARK WEBB, GRANT COUNTY JUDGE

I would like to thank you for the opportunity to comment on S. 2895.

I also want to thank Senator Wyden and his staff for their ongoing efforts to address issues relevant to forest and community health. Despite my concerns about the merits of S. 2895, I very much appreciate your efforts in this regard.

COMMENTS ON S. 2895

Most people I know support the purposes for which the bill was crafted (p. 2-3). A number of Grant County residents support the bill, regardless of its content, largely for the funding it promises and the hope it creates that a more active, responsible era of federal land management is possible. However, many residents, me included, have serious concerns about the merits of this bill in its current form.

Generally speaking, my concern is this: S. 2895 increases the scope and nature of the protections the Forest Service must deal with, but does not provide them with any new authorities. As a result it will make their work even more difficult, but that of environmentalists bent on stopping active management through litigation, even more easy. This is a recipe for management failure—and it is why the bill should not be passed as it's currently written.

LITIGATION

Past management practices—generally sanctioned by Congress and informed by the best available science of the time—have compromised the health of federally managed lands in various ways. However, litigation over the last couple decades coupled with its resulting lack of active management has brought many of these lands to the brink of ecological disaster. As such litigation is the critical challenge compromising effective management of federal lands today. Unfortunately, S. 2895 not only fails to address this critical challenge, but will arguably strengthen it.

I say this because while the bill is strongly supported some environmental organizations, this support reflects a compromise position that is arguably purchased at the cost of additional, far reaching protections. As a result, if passed, the bill will require the Forest Service to undergo even more regulatory and bureaucratic challenges as they attempt to implement the types of projects described in the bill. The new protections, with the bill's associated language, will provide new and ripe opportunities for litigation and strengthen the hand of environmentalists who are already so adept at litigating, who do not support the bill, and who remain in principle opposed to responsible management on federal lands. This is a bad mix, and one the bill will empower.

LITIGATION—SOME “LANGUAGE” PROBLEMS

(1) The bill makes frequent, critical use of the notion of “best available science”. Yet that phrase must always be understood against a background set of beliefs, assumptions, and perspectives about what counts as good science and what counts as relevant in any given situation. And that can vary enormously between scientific disciplines, and even between practitioners within the same discipline. The phrase will also mean one thing in a more theoretical, research oriented context and quite another in the applied context of actual forest work and responsible land management.

In short, the phrase “best available science” lacks a single, univocal meaning that applies across the various disciplines and contexts of application this bill covers. Given the central role the phrase plays in the implementation of the bill, without further clarification it will constitute an important weakness that will be exploited by groups opposed to active management on federal lands.

(2) The bill requires, within 5 years of its passage, the Secretary to dispense with the “cutting limitations” described in section 4(b)” of the bill (p. 45ff), and to “prepare ecological restoration projects that are designed to use an age [class] limitation [rather than a diameter limitation] that prohibits the harvest of any tree the age of which is greater than 150 years” (p. 45ff).

This is confusing, for two reasons. One is that 4(b) essentially prohibits the “removal”, or harvest, of any tree larger or smaller than 21 inches dbh unless certain ecological conditions are met (p.16ff). Ecological considerations in 4(b), not diameter limits, really determine what size trees can be removed. The bill essentially starts with an age class limitation despite its reference to diameters. The other reason is that the cutting limitations contained in 4(b), which the Secretary is supposed to

dispense with, include precisely the kind of ecological considerations the bill is intended to promote.

I'm confident this is not the bill's intent, but the bill's language appears to require it. The apparent lack of consistency in this regard will create serious problems for the design and implementation of projects.

(3) The bill lays out specific goals for the areas covered and the projects undertaken. At one point the bill states "the Secretary shall consider methodologies that could potentially help achieve . . . wood harvests to sustain adequate levels of industry infrastructure" (p. 14ff), while at another it states the projects "shall provide a minimum quantity of timber based on the need to maintain a sustainable industrial capacity to perform the ecological restoration activities under this Act" (p. 40ff).

The potential problem here is that the meaning—hence practical implication—of phrases like 'adequate levels', 'minimum quantity', or 'sustainable capacity' depends critically on the nature and scope of the activities undertaken. For example, the amount of industrial capacity needed to mechanically treat a 30,000 acre project that treats 60% or more of the acres in the project—a reasonable expectation if restoring and maintaining ecological resiliency is the goal—will be significantly higher than if we treat those acres in a non-mechanical fashion, say by burning, or treat only 25% of these acres in whatever manner, as is common nowadays. Alternatively, what if we need to sustain a higher industrial capacity, just to have any industrial capacity whatsoever in the area to do restoration work, than what the advisory panel considers necessary to perform the scope and nature of work they deem appropriate? This is a practical problem that is sure to occur with far reaching implications on several fronts. Yet the bill provides no clear guidance or means by which to address it.

There are other examples, but: As a piece of legislation that intends to change the direction and focus of eastside forest land management, create jobs, and help stabilize communities, the bill requires considerably more tightening up of its language and the consistency between its parts and sections if it is to see smooth and effective implementation.

LITIGATION—SOME REGULATORY CONCERNS

(1) With some exceptions, the Forest Service currently prohibits harvesting trees 21 inches dbh or larger. Some environmental groups regularly threaten to sue, or litigate projects, in the attempt to move tree harvest size down to 14 inches dbh and less—i.e., to the economically less valuable trees. Often successful, such a move compromises the ecological value of the project because it prevents the Forest Service from implementing treatments that reduce to appropriate levels fuel loads or basal area. It also compromises their ability to underwrite the cost of work by reducing the amount merchantable material they can harvest from the projects.

It is worth noting in this context that, unlike protected animals, large trees can't migrate and therefore populate areas that lack them. However, the ecological value of large trees can, in an important sense, be "transferred" to other areas that need treatment via the harvesting (where appropriate) and economic return provided by larger trees, which can then be used to underwrite treatments in other areas to restore or maintain ecological resilience.

That said, S. 2895 will prohibit the harvest of trees 21 inches dbh or larger, as well as trees that are smaller than this, unless certain conditions are met. That is, the bill will essentially prohibit the harvesting of any trees whatsoever their size unless certain conditions are met. This prohibition probably represents an attempt to protect not only old growth trees, but also trees with old growth characteristics—something environmentalists support. Whatever the motivation, this prohibition and its associated conditions will provide environmentalists with additional legal leverage to use as they litigate to stop the commercial harvest of any trees.

The bill's prohibition on harvest will therefore complicate the Forest Service's job, increase the likelihood of successful litigation by environmentalists, and further compromise attempts to implement cost effective, ecologically appropriate treatments based in part on the quality and amount of merchantable material available per acre treated.

(3) The bill enlarges the scope of PACFISH/INFISH. As such it ignores the growing body of evidence that indicates riparian habitat and returning numbers of listed fish on national forests are, generally speaking, trending upward. It ignores the fact that many of these areas themselves require active management if they are to be healthy again. And it ignores the fact that these areas are among the most productive timber lands available, such that treatment in these areas would be ecologically beneficial and economically advantageous. In short, there appears to be no compel-

ling ecological reason to expand their scope, but several good reasons—both economic and ecological—to forego that move.

Given this, arguably the only reason to expand the scope of PACFISH and INFISH is to secure support for the bill by environmentalists. This move, however, is a bad move and will further complicate the Forest Service's job as well as the cost of its projects, and further empower environmentalists who regularly litigate to stop commercial activity—e.g. grazing—on federal lands.

(4) The bill requires the Secretary to “carry out implementation of each ecological project in a manner consistent with the advice of the advisory panel” (p. 13). This assumes the panel's advice will always embody the “best available science”—otherwise the bill wouldn't require the Secretary to act in a manner consistent with the panel's advice. The bill does not require the Secretary to do likewise with either Forest Service personnel or collaborative groups. This assumes that Forest Service personnel and collaborative groups lack the scientific know-how and practical expertise to implement sound restoration projects—otherwise the Secretary would be required to act in a manner consistent with their advice. Both assumptions are mistaken.

In addition, the bill explicitly ascribes a number of responsibilities to the Advisory Panel. I would argue that it tacitly expects the panel will function to provide a “unified” scientific “voice” to cut through the problems “dueling” science presents nowadays for project implementation and courtroom litigation. If so, this is an unlikely outcome for two reasons. One is that the bill does not imbue the advisory panel with the necessary scientific or legal weight required to put such matters to rest quickly, if at all, in the relevant contexts. The other is that at the project level, the scientific advice in question will amount to the application of science. As such, the “right” application of science in these contexts will vary according to the various goals, perspectives, and values of the scientific practitioners in question.

The advisory panel is unlikely to function effectively as intended over the long-term. It will add to the bureaucratic and procedural challenges the Forest Service needs less of. There is therefore no good reason to craft a piece of legislation around such a concept or group.

There are other examples, but to conclude: As a piece of legislation that promises to significantly enlarge the scope of work on eastside federal lands, and enhance and expedite the implementation of projects, the bill requires considerably more work if it is to be successfully implemented and we are to see healthier forests, more jobs, and more stable communities. To this end I would urge Senator Wyden's office to revisit the notion of ecological resiliency and more fully exploit its promise as the center piece of this bill and management efforts generally for eastside federal lands.

Senator WYDEN. Judge, thank you, and I'll have some questions in a moment. I obviously am very, very sympathetic to the kind of economic hurt that folks are going through in Grant County. As you know, I've been over there for something like 14 town hall meetings over the years, and it just leaps out at you when you spend a couple of hours just listening to folks.

One of the reasons that we do feel that it's important to build a coalition like this, I mean, this is the premiere forestry groups, the American Forest Resources Council, Boise-Cascade, Ochoco, and leading environmental groups, is we haven't been able to get started. I mean, year after year after year we've been tied up in knots. I think you're absolutely right, with respect to this funding issue, which is why I pushed so hard and we were successful to get the \$50 million included in the President's budget. But I do think we've got to get started and we've got to get started on some of the key issues, which you correctly addressed, this question of appeals and litigation.

You look at section 9, you look at section 11 of the bill, they go right to that issue. Now, maybe we should work with folks and refine them. I can tell you that I've got some Democrats who think that we're doing too much to restrict appeals and litigation, and I respect your view that perhaps not enough has been done. But, I want you to know, to me, getting started is what this is about, so I'll have some questions in a moment.

Mr. Smith.

Judge WEBB. Can I correct one thing? I'm not saying that I think you need to do with the existing appeal process and the like, what I was saying is that there seems to be a pretty strong correlation, the more protections you've got, the more litigation you're likely to face. This bill introduces more protections, so it's likely to open the door to more litigation. So, I'll leave it at that.

Senator WYDEN. I sure wouldn't see the country's premier timber industry groups going to press conferences for bills that are going to produce more litigation. That's what we had in December, we had the leading timber groups saying they felt it was important to get started. So, we'll have a debate some more on it, but I just so value the input coming from Grant County, and we're going to want to work very, very closely with you in the days ahead.

Mr. Smith, welcome.

STATEMENT OF STANLEY SMITH, CHAIRMAN, CONFEDERATED TRIBES OF WARM SPRINGS

Mr. SMITH. Good afternoon, Senator Wyden. I'm Stanley Buck Smith, I'm the Chairman of the Confederate Tribes of Warm Springs Reservation Oregon, and I appreciate the opportunity to be here today to offer comments, on behalf of the tribe, on the Eastside Forest Bill.

Warm Springs Reservation includes large forested areas with significant tracks of commercial tribal timber. We manage these lands carefully to serve important varied economic and cultural values. The tribe has—the tribe also has a treaty reserved rights to hunt, fish, gather, and graze livestock on Federal lands outside of our reservation, including lands on the Deschutes, Ochoco, Malheur, and Umatilla National Forest. As you can see, the Warm Spring tribes have both expertise and the unique rights and interests to bring to the discussion of the managing Oregon's eastside forests.

There is no disagreement that national forest lands here in central and eastern Oregon are seriously degraded and in crisis. Over the past decade and more, a variety of efforts have been made to try to address these problems. Clear success has been elusive and the health of our national forests continue to decline. Hopefully S. 2895 will reverse this situation.

These ecosystems needs need to be returned to normal—to more natural conditions. It is important to recognize that the—for centuries, prior to you America settlement, tribes actively managed these forest lands. These management activities were highly sustainable. They supported habitat and watershed functions that provided food, fiber, shelter, and commerce for tribal communities. These include fish, game, traditional plants, among other things.

The management of today's forest, the tribe has constantly stressed the need for certain fundamentals, these include sound science-based decisionmaking, collaborative and landscape scale planning, long-term stewardship contracting, creation of market through biomass utilization to assist forest health restoration, and monitoring to verify management outcomes, and drive adaptive management.

We are pleased these elements are in the Eastside Forest Bill. S. 2895 is clearly the most involved, direct, detailed approach pre-

scribed yet to improve forest health. Ultimately, while stockholder involvement is a hallmark of this legislation, it is incomplete. The bill omits specific inclusions of the tribes, the oldest stewards of Oregon's lands and resources. We have lived on and managed these lands and resources for tens of thousands of years. We have history, we have knowledge, we have unique rights interest on these lands. The tribe must be included in the bill's technical advisory panel to the other groups. The tribe values its positive working relationship with Federal resource managers and other neighbors.

We believe that this bill, with minor modifications, can help to reinforce these successes. We look forward to working with Senator Wyden and joining and advancing S. 2895 to as much as a needed focus and attention can be brought to improve Oregon's Eastside National Forest.

Thanks for allowing the Confederate Tribes of Warm Springs the opportunity to make our comments.

[The prepared statement of Mr. Smith follows:]

PREPARED STATEMENT OF STANLEY SMITH, CHAIRMAN, CONFEDERATED TRIBES OF
WARM SPRINGS

Mr. Chairman, I am Stanley Smith, Chairman of the Confederated Tribes of the Warm Springs Reservation of Oregon. I am here today to offer the Tribe's testimony on the Eastside Forests bill.

The Tribe has significant interests in forest management on federal lands. The Warm Springs Reservation consists of approximately 640,000 acres. 440,000 acres are forested and 300,000 are in commercial timber production. The Tribe also reserved important off-Reservation treaty rights to hunt, fish, gather and graze livestock on federal lands.

While our Reservation is primarily bounded by the Mount Hood National Forest, which is not subject to S. 2895, the Deschutes National Forest is immediately adjacent to our southern boundary and our Treaty-ceded territory also includes lands in the Ochoco, Malheur, and Umatilla National Forests, and our Treaty reserved rights extend to those lands.

The on-Reservation and off-Reservation forested lands are essential for providing watershed functions for clean water and habitat for fish and wildlife species. They are also an element of the Tribe's culture, vital for improving and sustaining the quality of life of Tribal members and they are a key support to the Tribe's self-governance and sovereignty. These values are recognized in federal policy—the Tribal Forest Protection Act—which the Tribe fully supports.

Eastside forests are part of a fire-adapted ecology; however, several factors have combined to create conditions that make wildfires extremely hazardous. These ecosystems desperately need to be returned to a more natural condition—the bill's focus appears to be on conditions before Euro-American settlement.

It is important to recognize, however, that for centuries prior to Euro-American settlement, tribal communities actively undertook forest land management activities. These management activities were highly sustainable—they supported habitat and watershed functions that provided food, fiber, shelter and commerce for tribal communities. This included fish, game, and traditional plants among others.

The Tribe has commented many times in numerous forums stressing the need for:

- sound science based decision-making,
- collaborative and landscape scale planning,
- long term stewardship contracting,
- creation of a market through biomass utilization to assist forest health restoration, and
- monitoring to verify management outcomes and facilitate adaptive management.

The Tribe is pleased to see these elements included in the Eastside Forest bill. They are compatible with the Tribe's current efforts to advance its proposed biomass facility, to increase its direct management oversight on tribal resource lands, including forestry operations, and to engage with all our neighbors in efforts to better manage and preserve the lands and resources within our Treaty ceded territory.

There is no disagreement that our National Forest lands throughout the west and particularly right here in central and eastern Oregon are seriously degraded and in crisis. Over the past decade and more, a variety of efforts have been made to try to address these problems. But unfortunately, clear success has been elusive. Gridlock remains, and the health of our National Forests continues to decline. In response, now comes S. 2895, the Oregon Eastside Forests Restoration, Old Growth Protection, and Jobs Act of 2009, the most involved, direct, and detailed approach yet to improving forest health. Like its predecessors, no one can predict how it will turn out. It may work, and we hope it will, or it may not. But the exactitude of this bill is testament to the desperate circumstances Oregon's citizens and the U.S. Forest Service face in the care of these lands. So, too, is the fact that the conservation and forest products communities have come together to collaborate on this measure.

Unfortunately, the collaboration that is a hallmark of this legislation is incomplete. The bill omits specific inclusion of the tribes, the oldest stewards of Oregon's lands and resources. We have lived on and managed these lands and resources for tens of thousands of years. We have history, we have knowledge, and we have unique rights and interests on these lands that we fought and negotiated for when the Europeans arrived. Now, with this legislation that seeks to return Oregon's eastside National Forests to something close to the state in which we left them to you, it is hard to understand why we have been omitted, particularly from the Advisory Panel and specific inclusion in the collaborative groups.

Notable omissions in the bill include

- the failure to recognize the need for tribal expertise on the Technical Advisory Panel related to traditional plants and management regimes;
- the failure to require tribal participation in groups seeking to become recognized collaborative groups by the Secretary, especially when other local government participation is required; and
- the failure to otherwise clearly address traditional plants and management practices in the landscape scale planning process and restoration activities under the bill.

In an effort to return forest conditions to a more natural state, the Tribe believes that it is necessary to understand pre-European settlement conditions and management practices and have a goal of improving the condition of these treaty resources—healthy fisheries, big game, cultural plants, among others—incorporated into restoration plans.

Many resources that once existed, for example huckleberry or root fields, have been altered or crowded out by different species. Tribes must be involved and consulted technically in order to understand the location of these resources and the methods traditionally employed for management so that we can work together to have success in restoring them.

The Tribe values its collaborative working relationship with federal resource managers and we believe that this bill, with minor modifications, can help to reinforce these successes. We look forward to working with Senator Wyden in joining and advancing S. 2895, so that the much needed focus and attention can be brought to improving Oregon's eastside National Forests.

Thank for allowing the CTWS the opportunity to comment.

Senator WYDEN. Mr. Chairman, thank you very much for coming. I think it's fair to say you all have been a critical partner in the management of Federal lands. You've done an excellent job of managing your own lands, and with your successful biomass facility, I think your input is especially important right now, as we seek to expand biomass as a major jobs producer for our State. This is about greening up our power supply, putting our folks to work, and you all are a text book case of a biomass program that I think we can build on in the days ahead.

What do you think is possible in terms of increased and improved management of Federal lands for your biomass program? Do you believe you could grow it 20 percent, 30 percent, what do you think is the potential here with improved management of Federal lands for your biomass program?

Mr. SMITH. I think we need to, actual—I think we—we can only probably produce 30 or 40 percent——

Senator WYDEN. More.

Mr. SMITH [continuing]. Then we'd be running out, yes.

Senator WYDEN. You could produce 30 or 40 percent more?

Mr. SMITH. Yes. We need the other forest, you know, we got to make it work and deal with that, you know, really to make it feasible to operate our biomass.

Senator WYDEN. Good. I could tell you, anybody who can increase their 30 or 40 percent of what they're doing, and they're talking about a promising industry of the future, that is—that is good news for folks in Oregon where the unemployment, of course, has been consistently higher than almost anywhere in the country. So, that is good news, Mr. Chairman.

Tell me also, so we can nail this down, we tried to make sure that the tribe would be well represented in the advisory process. Are there some additional changes that you all are seeking in that area?

Mr. SMITH. You know Senator, I've been the chairman for 1 month, so——

Senator WYDEN. Oh, you're a grizzled veteran.

Mr. SMITH. Yes, so that should say something, but you know, I know we've been working on this for a long time, and I fully don't have an answer to that. I don't know if my—John, do we have any comments on that?

Senator WYDEN. Extra points for candor, Mr. Chairman.

Mr. SMITH. Right.

Senator WYDEN. Given the fact you've been there for a month, we'll follow up with you for the record, but I want you to note that I want to be very sensitive to the point of making sure that we get the advisory functions of this bill right, so that the tribe is a full partner, a full and activist partner in this effort.

As I said, I think your biomass contribution alone makes it clear that you are setting out some of the most promising ground for the rural Oregon economy, and we're going to work closely with you.

Mr. SMITH. Yes, our natural resources department handles most of that.

Senator WYDEN. Very good, we'll involve them as well.

Let's go then to you, for a minute, Mr. Carrier, tell me a little bit about the work of the Federal Forest Advisory Committee, in other words, the State is obviously front and center on lands owned by the State, but tell me about the work with the Federal Forest Advisory Committee and how the State and the Federal Government interact.

Mr. CARRIER. Senator, thank you for that question, because that was the part of the Federal Forest Advisory Committee.

Senator WYDEN. I think we're——

Mr. CARRIER. I'm sorry, that was me turning it off, which I will learn not to do next time. There it is, it's on now.

Senator WYDEN. All right.

Mr. CARRIER. Senator, sorry.

Thank you for asking the question because that was part of the work of the committee that I didn't get, was what were their recommendations and why was the Governor and the committee moti-

vated to have the State take on this role of partnering with the Federal agencies to bring additional capacity to the Federal land management effort. It's because, as we all agree, the Federal footprint of these forest lands in Oregon is huge. The legacy of its contribution to our economy and to rural jobs is incredible. The loss of that capacity and those jobs and those benefits of those lands that we're experiencing is very pronounced, especially here on the east side.

So, the advisory committee had 3 major categories of recommendations. The first was for the State legislature to make appropriations, additional appropriations to our State Department of Forestry, so we could have foresters available to assist in Federal land management activities. As you know, we, like most States, are in a severe budget situation right now. We weren't able to receive those appropriations, but fortuitously, a year ago when the Federal Stimulus legislation was passed, quite a bit of the Forest Service money came to this region for forest health work that the Forest Service didn't have the capacity to manage on its own, and about 40 FTE of State forestry staff that we would have otherwise laid off, we were able to move over under contract to the Forest Service to provide the very kind of assistance that the Federal Forest Advisory Committee had recommended the State has the opportunity to offer.

The second area was for the Congress to adopt policy legislation and appropriations to bring additional capacity to these Federal land efforts. Much of what was in that recommendation of that committee is embodied in your bill, Senator.

Then the third area was, because of the importance of collaborations and how they demonstrated the opportunity to bring peace and resolution to potential conflict over management is so important. There was a third category of recommendations in which Oregon would sponsor and partnership with the National Policy Consensus Center at Portland State University, a form to incubate, grow, support, and mature collaborations on Federal forest land management around Oregon. I'm happy to say, that that part continues to function. I convene every month a meeting, many of the people in this room are stakeholders that have joined in that collaboration and we have identified and are supporting and fostering the growth of collaborations as modeled in your legislation.

Senator WYDEN. What about landscape scale projects, that is a major focus of this legislation and I know this is an issue you all have been examining at the State level, as well. Can you elaborate there?

Mr. CARRIER. Yes, thank you, Senator. That was a major finding of the FFAC, was that the current Forest Service planning model does not work well in addressing landscape scale restoration and forest health needs. As you well know, forests don't recognize ownership or political boundaries, and the problems of forest health, insect and disease and catastrophic wild fires do not recognize those boundaries. We need to be treating these forests on a landscape scale.

The current Forest Service planning model tends to treat management on 5 to 10 thousand acre blocks, and not of a landscape scale. So the committee recognized, as you have in your legislation,

that we've got to start approaching management on a large landscape scale, so that was a major finding and recommendation.

Senator WYDEN. OK.

Judge Webb, question for you. One of the big areas of focus for this coalition was to find a way to jumpstart some very tangible progress. In other words, we've gone on for years and years and years with this gridlock and simply been unable to move forward. I share your view, as we've talked about, that funding is absolutely key to all this, that was the point of pushing in the Obama administration. I share your view with respect to litigation and appeals, that's why we have provisions there. But give me your thoughts on how you would jumpstart a major thinning and restoration effort, getting saw logs to the mills, without something like we have in this legislation?

In other words, you've made the argument, and it's one that I've thought a lot about, that gosh, if they just give us the money everything's going to come out fine. But it seems to me there's still a big challenge with the gridlock. So, what the coalition behind this bill did, is they found a very specific, almost step by step process, for jumpstarting a serious restoration, saw logs to the mills, thinning kind of effort. What would be your approach for jumpstarting such an effort?

Judge WEBB. That's an excellent question. My proposal would be that we start at the bottom and work up, and that is begin with the local collaborative. There is a collaborative in Grant County that works on the mount here, actually 2 of them. The one I'm a part of is the Blue Mountain Forest Partners. The other I believe is called the Southern Blues. We are both asked and invited the possibility of using them out here in total or just a part of it, as a pilot project, to implement some of the kind of prescriptions and approaches to forest restoration that you talk about here. So, that is very real. It could be likely, short the funding.

That is to say, we can currently pursue everything again that's in here, through that collaboration, which you're going to have work through a collaboration anyway, without yet mandating sort of legislatively across the board that certain things have to be done before we know whether they're going to work well or not. We would welcome the opportunity to do a pilot project on them out here in Grant County. You've got some of the major players, some of the major environmental organizations, industry folks, the elected officials. It would be a great opportunity to sort of test, not just in principle, but in practice, what you've proposed here and to see how it actually works on the ground, and if it can be implemented. That would be a start.

Senator WYDEN. We'll definitely follow up with you. My concern would be to just do it in one county, and obviously, as part of our legislation, your county, you know, Grant County, eastern Oregon is going to be a special focus of this bill. We could probably lose a lot of mills in the process if we just had only one, you know, county. We're looking at 6 national forests and essentially eastern and central Oregon. But you all have been very constructive to work with, not just on this legislation, but on timber payments and—so we'll be consulting you often.

Judge WEBB. I don't think you need to just start in Grant County, I think what I wanted to stress is, whatever county you start in, it should be at the bottom, work up through the collaborative, if there is the available funding, we can attempt to implement what's here and see how it works before it becomes the law of the land with the associated concerns that we have.

Senator WYDEN. Very good.

Gentlemen, thank you all. We'll excuse you at this time and we'll be working closely with you.

Our second panel includes folks with a great deal of expertise in the forestry arena. They were essential to getting the agreement, go forward with this legislation. Jerry Franklin, Professor of Ecosystem Analysis at the College of Forest Resources at the University of Washington, Tom Insko, Region Manager, Boise Cascade, Jim Wall, Executive Director for Lake County Resources, Russ Hoefflich, Vice President and State Director for Nature Conservancy, and Tim Lillebo, Eastern Oregon Wildlands Advocate for Oregon Wild.

All right, gentlemen, thank you all. We very much appreciate everybody coming out, and let's begin, if we could, with you, Professor Franklin.

Welcome, thank you for your yeoman efforts over these many years, to prosecute the case of sustainable forestry and really welcome you this afternoon to central Oregon.

STATEMENT OF JERRY F. FRANKLIN, PROFESSOR, ECOSYSTEM SCIENCE, SCHOOL OF FOREST RESOURCES, UNIVERSITY OF WASHINGTON

Mr. FRANKLIN. Thank you, Senator Wyden, it's a pleasure to be here today.

I'm here, of course, providing testimony for myself and for Dr. K. Norman Johnson of Oregon State University. We're really focusing our testimony on restoration on the dry forests that dominate the forests of eastern Oregon and Washington, and particularly the state of scientific understanding of forest restoration, and our recommendations given that understanding.

In my remarks here, I'm just going to emphasize 2 or 3 significant points. When we talk about the dry forests, we are talking about the forest that belonged primarily to the ponderosa pine and dry mixed conifer plant associations, which historically were characterized by relatively frequent but low to moderate severity disturbance, including wildfire and localized insect outbreaks.

Restoration of these ecosystems and landscapes must be the primary focus of our stewardship in these national forests, not merely focused efforts that address only wildfire and fuels. Threats from wildfire, insects, and climate change can only be dealt with appropriately in the context of returning dry forest and landscapes to a more natural, functional, and resilient state. If we focus or allow ourselves to be focused only on wildfire and fuels, we get led down blind alleys and interminable arguments about how little or how much management is needed to modify fire behavior, when the issues and the solution are much more fundamental than that.

The dense mixed conifer stands often dominated by grand fir and Douglas fir are under constant attacks from spruce bud worm and

other defoliators, large contiguous blocks of such forests are not sustainable and never have been in these landscapes.

The scientific evidence is overwhelming that there have been massive changes in the average structure, density, composition of the dry forest, and the balance among fire regimes and fire behaviors, and the fundamental patterns of forests covering these landscapes, and in the resilience of these forests. To argue otherwise is nonsense, it defies both what has been documented and what we can see with our own eyes. Worse, it tends to mislead one to believe that everything happening out there is natural, part of a natural cycle and that nature will correct it.

Western civilization has massively altered these forests and landscapes, reducing their resilience and putting them at great risk in a warming and drying area. Nature will provide a corrective to these changes if we do not, but we will not like the consequences, for it will be at high cost in wildlife habitat, water quality, and other services, and catastrophic losses of the irreplaceable old pines.

We created the highly dysfunctional ecosystem conditions that currently exist, and in our opinion, we are obligated to work with nature in bringing them back to a more functional and sustainable state.

Restoration programs must begin with efforts to restore and maintain historic populations of the old trees. Old growth trees, primarily, but not exclusively of pine, are the keystone ecological structures in these dry forests. In stands of appropriate density, these old trees dominate, provide critical habitat, offer the greatest resistance to fire and drought and climate change, and are the source of the large persistent snags and logs. Again, critical habitat for the majority of the vertebrates.

Stewardship needs to focus on retaining and nurturing the existing population of old trees, and again, they are as at great of risk from excessive stand density from competition as they are from fire. Focus needs to really be on the old trees rather than on simply larger trees, because it is the old trees that have the greatest ecological and social significance. The current diameter limit permits the removable of irreplaceable old trees, and deters us from removing large, young, competitive firs that threaten the survival of the old trees.

Again, you know, our view here is that in a perfect world, we might wait to take action until we knew a certainty all effects that a widespread restoration program would have on all creatures. We don't have that luxury, given the state of our forests and the values. The peril to the dry forests from inaction is too great and that certainly includes the mixed conifer forests. We need to undertake major restoration efforts now.

Thank you.

Senator WYDEN. Very well said, Professor, and I'll have questions just in a moment.

Mr. Insko.

[The prepared statement of Mr. Franklin follows:]

PREPARED STATEMENT OF JERRY F. FRANKLIN, PROFESSOR, ECOSYSTEM SCIENCE,
SCHOOL OF FOREST RESOURCES, UNIVERSITY OF WASHINGTON

I am Dr. Jerry F. Franklin and I am here today to give testimony for myself and Dr. K. Norman Johnson. I am Professor of Ecosystem Science in the School of Forest Resources at University of Washington. Dr. Johnson is University Distinguished Professor in the College of Forestry at Oregon State University. These comments represent our views and not those of our respective institutions.

Our testimony focuses on restoration of the Dry Forests that dominate the national forests of eastern Oregon, especially the state of scientific understanding of forest restoration and our recommendations given that understanding. We previously gave testimony on the scientific principles imbedded in the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act of 2009 (S 2895)—the topic of today's hearing. Today we thought it would be most useful to address the broad scientific foundations for action in the forests of eastern Oregon, given that S 2895 calls for action and controversies have recently surfaced about whether active management is needed to restore these forests.

Division of federal forests into Moist and Dry Forests based upon plant association is a critical initial step in forest restoration planning and development of forest policy related to old-growth. The Dry Forests belong primarily to the ponderosa pine and dry mixed-conifer plant associations, which historically were characterized by relatively frequent low-and mixed-severity disturbances, including wildfire and localized insect outbreaks. Moist Forests are found at higher elevations and are characterized by infrequent disturbances that include stand-replacement components. On Dry Forest sites, the composition and structure of most existing forests—including those that can be characterized as old growth—have been significantly altered by western civilization. These changes have been brought about by numerous activities including fire suppression, grazing by domestic livestock, logging, and plantation establishment. These activities have resulted in dramatic increases in stand density and shifts in composition toward less fire-and drought-tolerant tree species. Active management often is required in these Dry Forests to reduce the potential for uncharacteristic and ecologically damaging wildfire and insect outbreaks, even though many of these forests still have populations of old-growth trees.

Restoration of the dry forest ecosystems and landscapes must be the primary focus of our stewardship in the national forests in eastern Oregon and Washington—not narrowly focused efforts that address only wildfire and fuels! Threats from wildfire, insects, and climate change only can be dealt with appropriately in the context of returning dry forests and landscapes to a more natural, functional and resilient state. There are multiple undesirable consequences of the hugely excessive areas of overly dense and drought-and fire-prone stands that we have created during the last 150 years. Insects are at least as much of a risk to these forests and the services that they provide as severe wildfire. The monocultural focus on wildfire and fuels leads us down blind alleys and interminable arguments about how little or how much management is needed to modify fire behavior, when issues and solutions are much more fundamental. The dense mature stands of grand fir and Douglas-fir are under constant attacks from spruce budworm and other defoliators; large contiguous blocks of such forests are not sustainable and never have been. In overly dense old-growth stands, competition from young firs put old pines at increasing risk to bark beetle attack. There is strong evidence that they are declining in vigor and dying at accelerating rates (see, e.g., van Mantgem et al. 2009, Wide-spread increase of tree mortality rates in the western United States. *Science* 323:521-524).

The scientific evidence is overwhelming that there have been massive changes in the average structure (density) and composition of the dry forests, in the balance among fire regimes and fire behaviors, in the fundamental patterns of forest cover in these landscapes, and in the resilience of these forests. To argue otherwise is nonsense, defying both what has been documented and what we can see with our own eyes. Worse, it misleads one to believe that everything that is happening out there is "natural"—part of a natural cycle—and that nature will correct it. Western civilization has massively changed these forests and landscapes, reducing their resilience and putting them at great risk in a warming and drying era. Nature will provide a corrective to these changes—if we do not—but we will not like the consequences for it will be at high cost in owl and other wildlife habitat, water quality and other services, and catastrophic losses of the irreplaceable old pines! We created the currently highly dysfunctional ecosystem conditions and, in our opinion, we are obligated to work with nature in bringing them back to a more functional and sustainable state.

Restoration programs must begin with efforts to restore and maintain historic populations of the old pine trees. Old-growth trees—primarily ponderosa pine but sometimes of other species, such as western larch, Douglas-fir, and sugar pine—are the keystone ecological structures in the dry forests. In stands of appropriate density these old trees dominate, provide critical habitat, offer the greatest resistance to fire and drought (and climate change), and are the source of the large persistent snags and logs (again, critical habitat for the majority of the vertebrates). Stewardship needs to focus on retaining and nurturing the existing population of old trees—and, again, they are at as great a risk from excessive stand density (competition) as they are from fire. Further, stands need to be managed so as to provide younger age classes of pine and larch that can, ultimately, bring old tree population levels back to historic levels and maintain them there. Finally, the focus needs to be on the old trees rather than simply large trees (e.g., >21 inches diameter in breast height) because it is the old trees that have the greatest ecological and social significance; the current diameter limit permits the removal of irreplaceable old trees and deters us from removing large young competitive firs that threaten the survival of the old trees.

In ecological restoration, old trees need to be dedicated to sustaining ecological values on the site as living trees and, subsequently, large snags and down logs. Salvaging old trees when they are killed does NOT help restore forests—these dead trees provide vital ecosystem functions as large snags and down logs. Not only does salvage of such trees result in further ecological degradation but this practice erodes public trust in restoration management. Also, greater efforts are needed in prescribed burning programs to reduce unintended damage to and mortality of old trees. We believe that prescribed burning programs in the western United States have been far too casual in accepting significant and avoidable mortality of old pines. Recently one of us (Franklin) watched personnel doing prescribed burns in longleaf pine forests in the southeast and was struck by the individual attention given nest trees for the Red-Cockaded Woodpecker. Increased attention to protecting old tree populations must be incorporated into the prescribed burning programs in western North America.

We are very concerned that misdirection seems to be very much in vogue among opponents to restoration programs in Dry Forests. For example, some have raised the need for “early successional ecosystems” as an important issue in the Dry Forest landscapes. We happen to know something about this concept as we helped initiate interest in such ecosystems and have published peer-reviewed articles on it. The concept of early successional ecosystems has almost no relevance to the dry forest landscapes as it rarely ever existed as a distinct condition there. Such landscapes were dominantly fine-scale structural mosaics in which non-forest dominated patches were integral parts. The concept of early successional ecosystems applies primarily to forest ecosystems characterized by stand-replacement disturbances, such as those found at higher elevations in eastern Oregon and in the moist forests on the Pacific slope.

Another example of misdirection relates to the response of Northern Spotted Owls to stand-replacement fire. We do not believe that there is any competent owl biologist who believes that Northern Spotted Owls are favored by having their forest habitat subjected to stand replacement wildfire or stand-killing spruce budworm outbreaks. There is no evidence that such events benefit the owls or even firm evidence that owls persist in such habitat over the long term, once the fidelity of existing pairs is exhausted.

We know enough and it is long since past time to initiate an aggressive restoration program in the federal forests of eastern Oregon and Washington, building on such innovative approaches as the recent Glaze Meadows project near Black Butte Ranch on the Deschutes National Forest. Since this program would require several decades for completion, there are extraordinary opportunities to use an adaptive management approach. For example, a research project to quantify the responses of Northern Spotted Owls and other biota to the landscape-level restoration efforts can be designed and carried out and the resulting scientific findings used to modify restoration approaches where necessary. Indeed, such an adaptive approach—with committed funding for research and monitoring—is imperative if the restoration program is to be fully credible.

In a perfect world, we might wait to take action until we knew with certainty all effects that a wide-spread restoration program would have on all creatures, great and small. We do not have that luxury given the state of our forests and the values at stake. The peril to the Dry Forests from inaction is too great. We need to undertake major restoration efforts in the Dry Forests of eastern Oregon now.

**STATEMENT OF TOM INSKO, REGION MANAGER, BOISE
CASCADE, LLC**

Mr. INSKO. Senator, thank you.

I'm Tom Insko, Region Manager of Boise Cascade's Inland Region. Boise Cascade manufactures engineered wood products, plywood, lumber and particleboard and distributes a broad line of building products. More specifically, Boise Cascade's Inland Region includes eight manufacturing facilities located east of the Cascade Mountains. A plywood plant and two pine lumber mills are located in Kettle Falls, Washington. One of those two lumber mills is currently idle. In eastern Oregon Boise Cascade operates a pine lumber mill in Pilot Rock, a particleboard plant in Island City and a plywood plant and stud mill in Elgin. A pine lumber mill in La Grande is currently idle, shut down last year.

I'm here today to testify in favor of S. 2895, the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act of 2009. S. 2895 is an opportunity to make a shift: to preserve and create living wage jobs in rural eastern Oregon while beginning to restore the unhealthy landscapes that exist in our national forests.

It is no secret that Oregon is struggling with economic decline and double-digit unemployment rates. The rural communities of eastern Oregon have been hard hit by the economic downturn. During the past few years, there have been multiple mills closed contributing to these high unemployment rates.

Boise Cascade is the largest employer, both public and non-public, in Union County with approximately 470 employees. With nearly 100 employees in Pilot Rock, we're the fourth largest private employer in Umatilla County. These are good jobs, living wage jobs with excellent healthcare and retirement benefits. Unfortunately, during the past few years the number of employees working in our eastern Oregon mills has declined by more than 200. Some of the job cuts are the result of poor wood product markets, but the sad reality is that even with a market upturn these jobs are unlikely to be restored. The primary threat to living wage mill jobs is a lack of log supply in the region.

Boise Cascade's existing eastern Oregon mill infrastructure needs approximately 200 million board feet of logs annually, to operate its mills and sustain nearly 800 jobs. Today we procure less than 7 percent of our log volume from Federal forests. This 7 percent is from 10 national forests stretching from the Mount Hood to the Payette in Idaho, a 250-mile haul radius. This year approximately 85 percent of the logs Boise Cascade procures will come from private sources. Procuring this amount of logs from private sources is not sustainable. Meanwhile, just the 3 national forests that I'd consider local to our Boise Cascade's mills are growing in excess of 750 million board feet every year. These forests, the Wallowa-Whitman, Umatilla and Malheur, which I will henceforth refer to as the Blue Mountain National Forests, represent 68 percent of the commercial forestland in the area.

What is occurring on the Blue Mountain National Forests is consistent throughout our eastside Oregon Federal forests. With the Blue Mountain National Forests growing at a rate in excess of 750 million board feet per year, the 10-year average removal rate has been less than 10 percent of this, 73 million board feet. In 2009,

of the 86 million board feet removed, only 46 million of that was actually saw logs.

Three national forests representing nearly 5.5 million acres and growing more than 750 million board feet each year, are harvesting less saw log volume than what is required to operate a single-shift mill.

As the amount of wood growing on the national forests greatly exceeds the amount harvested and removed, our Federal forests have become seriously overcrowded. This leads to insect and disease infestations and increased risk of fire. As of July 2008, there were nearly five and a half million acres of fire condition class II and III on Eastern Oregon's Federal forests. Active management utilizing mechanical treatment methods is the only acceptable way to restore forest health. The positive by-product of this activity is saw logs, and saw logs provide economic stability. Each job created or retained in the milling industry has a job multiplier of 2.81.

Some have suggested the decline in the wood products industry in eastern Oregon is a natural dynamic which time has come. The facts don't support this contention. Boise Cascade and the industry have changed to match the changing social values of the public. As an example, I'd offer Boise Cascade's plywood plant and stud mill in Elgin now focus on the efficient use of smaller diameter logs. In 2009 the average diameter of a block peeled on our lathe at the plywood plant was 10.4 inches. Existing eastside industry infrastructure is well configured and needed to assist in the landscape restoration objectives of S. 2895.

Passage and implementation of S. 2895 will not be without challenges, and some with extreme perspectives will attempt to erode its success, but S. 2895 represents the collaborative work of many from the industry and environmental community, recognizing that we share many of the same values. These values are restoring forest health and landscape resiliency while maintaining the remaining infrastructure that is so vital to the rural communities of eastern Oregon. With this mutual purpose, the challenge was to identify the path by which one specific ideal does not eliminate the possibility of achieving the more significant shared purpose. I believe S. 2895 is representative of this.

I'd close with saying, passage of S. 2895 is only the first step. The legislative mandate to eventually quadruple the current levels the number of acres treated each year will require quick action by the Forest Service. It will be imperative that the committee hold the Forest Service accountable for their performance. Additionally, Senator Wyden, we need you to ensure Congress appropriates the \$50 million authorized in this bill to provide the Forest Service with the necessary resources to facilitate the implementation of the interim projects, and as well, as the development of the landscape ecological restoration plans.

I appreciate the opportunity to testify, and welcome the opportunity.

[The prepared statement of Mr. Insko follows:]

PREPARED STATEMENT OF TOM INSKO, REGION MANAGER, BOISE CASCADE, LLC

Mr. Chairman, members of the Committee:

I am Tom Insko, Region Manager of Boise Cascade's Inland Region. Boise Cascade manufactures engineered wood products, plywood, lumber and particleboard and

distributes a broad line of building materials. More specifically, Boise Cascade's Inland Region includes eight (8) manufacturing facilities located east of the Cascade Mountains. A plywood plant and two pine lumber mills are located in Kettle Falls, Washington. One of those two lumber mills is currently idle. In eastern Oregon Boise Cascade operates a pine lumber mill in Pilot Rock, a particleboard plant in Island City and a plywood plant and studmill in Elgin. A pine lumber mill in La Grande is currently idle.

I am here today to testify in favor of SB 2895, "the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act of 2009" introduced by Senator Wyden. SB 2895 is an opportunity to make a shift: to preserve and create living wage jobs in rural eastern Oregon while beginning to restore the unhealthy landscapes that exist in our national forests.

It is no secret that Oregon is struggling with economic decline and double-digit unemployment rates. The rural communities of eastern Oregon have been hard hit by the economic downturn with April unemployment rates for Wallowa, Union and Umatilla counties at 11.6, 10.4 and 9.9 percent, respectively. During the past two years there have been multiple mills closed contributing to these high unemployment rates. Just last week the equipment from the DR Johnson mill in Wallowa was auctioned. This mill and the jobs it provided to the local community are gone, forever.

Boise Cascade is the largest employer in Union County with approximately 470 employees. With nearly 100 employees in Pilot Rock, Boise Cascade is the fourth largest private employer in Umatilla County. These are good jobs, living wage jobs with excellent healthcare and retirement benefits. Unfortunately, during the past few years the number of employees working in these mills has declined by more than 200. Some of the job cuts are the result of poor wood product markets but the sad reality is that even with a market upturn these jobs are unlikely to be restored. The primary threat to living wage mill jobs is a lack of log supply in the region.

Boise Cascade's existing eastern Oregon mill infrastructure needs approximately 200 million board feet (mmbf) of logs, annually, to operate its mills and sustain nearly 800 jobs (this would include restarting the La Grande Sawmill). Today we procure less than 7 percent of our log volume from federal forests. And this 7 percent is from 10 national forests stretching from the Mount Hood to the Payette in Idaho, a 250-mile haul radius from our mills. This year approximately 85 percent of the logs Boise Cascade procures will be from private sources. Procuring this amount of logs from private sources is not sustainable. Meanwhile, just the three national forests considered "local" to Boise Cascade's mills are growing in excess of 750 mmbf each year. These forests, the Wallowa-Whitman, Umatilla and Malheur (which I will henceforth refer to as the Blue Mountain National Forests) represent 68 percent of the commercial forestland in the area.

What is occurring on the Blue Mountain National Forests is consistent throughout our eastside Oregon federal forests. While the Blue Mountain National Forests are growing at a rate in excess of 750 mmbf per year the 10-year average removal rate has been less than 10 percent of this, 73 mmbf. Of the 86 mmbf of removal volume in 2009 only 46 mmbf was sawlogs (sawlogs is defined as any log with a small-end diameter greater than 5.5 inches and a minimum of 8 feet in length). Three national forests representing nearly 5.5 million acres and growing more than 750 mmbf each year are harvesting less sawlog volume than what is required to operate a single two-shift milling operation.

As the amount of wood growing on the national forests greatly exceeds the amount harvested and removed, our federal forests have become seriously overcrowded. This leads to insect and disease infestations and increased risk of fire. As of July 2008 there were nearly five and a half million acres of fire condition class II and III on Eastern Oregon's federal forests. Active management utilizing mechanical treatment methods is the only acceptable way to restore forest health. The positive by-product of this activity is sawlogs. Sawlogs provide economic stability. Each job created or retained in the milling industry has a job multiplier of 2.81 (Source: IMPLAN and E.D. Hovee & Company).

Some have suggested the decline in the wood products industry in eastern Oregon is a natural dynamic which time has come. The facts don't support this contention. Boise Cascade and the industry have changed to match the changing social values of the public. As an example, Boise Cascade's plywood plant and studmill in Elgin now focus on the efficient use of smaller diameter logs. In 2009 the average diameter of a block peeled on our lathe at the plywood plant was 10.4 inches. Additionally, Boise Cascade processes pulpwood, essentially the top of the tree or dead logs, and produces chips for nearby paper manufacturers. Existing eastside industry infrastructure is well configured to assist in the landscape restoration objectives of SB 2895.

Upon passage, implementation of SB 2895 will not be without challenges. Some with extreme perspectives will attempt to erode its success. Some will argue that protections are too great and a diameter limit of 21" is arbitrary. Others will argue there should not be any focus on sawlog production or concern for sustaining existing logging and milling infrastructure. SB 2895, however, represents the collaborative work of many from the industry and the environmental community recognizing that we share many of the same values. These values are restoring forest health and landscape resiliency while maintaining the remaining infrastructure that is so vital to the rural communities of eastern Oregon. With this mutual purpose the challenge was to identify the path by which one specific ideal does not eliminate the possibility of achieving the more significant shared purpose. I believe SB 2895 is representative of this.

Passage of SB 2895 is only the first step. The legislative mandate to eventually quadruple from current levels the number of acres treated each year will require quick action by the Forest Service. It will be imperative that the Subcommittee for Public Lands and Forests hold the Forest Service accountable for their performance. Additionally, Senator Wyden must ensure Congress appropriates the \$50 million authorized in this bill to provide the Forest Service with the necessary resources to facilitate the implementation of the interim projects as well as the development of the landscape ecological restoration plans.

Boise Cascade appreciates this opportunity to be involved in creating and supporting legislation that offers potential solutions to the federal forest health crisis and management roadblocks that exist in eastern Oregon. Senator Wyden, we appreciate the work of you and your staff to introduce this bill. The hardworking Boise Cascade employees applaud your commitment to turn the status quo on its head in an effort to retain the jobs they so critically need. If they could, I'm sure our forests would thank you as well.

Thank you for the opportunity to appear before you today.

Senator WYDEN. Mr. Insko, before we move on, I want to see if I can kind of put this whole effort in, sort of, the appropriate context. There you are, you're the regional manager of Boise Cascade in eastern Oregon, did you think, even like in your wildest dreams, that you could reach an agreement on a major piece of forestry legislation with Andy Kerr and Tim Lillebo? I mean, it strikes me, if people were putting odds on something like that, nobody, nobody would have said that was possible. What was your take? I mean, when you started this, my sense is you all thought, we're going to try this. I mean, it makes sense given the fact that nothing else is working, but did you think that there was really a shot of pulling together this kind of coalition at the beginning?

Mr. INSKO. No, I was skeptical. I thought the initial conversations would likely lead to a waste of time. But, fortunately, it hasn't, we've been able to stay focused on the ultimate objectives. As we talked about some of those ideals that candidly we continued to disagree upon, but recognize that we can not continue to focus on that and result in not achieving any of the goals that we all actually agree upon, and that's the forest health issue and the fact that jobs in rural Oregon are critically important.

Senator WYDEN. I could tell you that talking to a lot of the partners in this, you're being pretty diplomatic when you say you were skeptical at the outset, because I think—I think a lot of people thought it was flat out crazy to think that anything like this could come together. I—I'll have some more questions for you in a moment, I wanted particularly to express my appreciation for your goodwill and for Boise Cascade, a major force in the timber industry, saying that they were going to try to put the time in to pull this together, and it clearly has paid off, and we're very appreciative.

Mr. Walls, great to see you, always like seeing you at town hall meetings and having your input, and please proceed.

**STATEMENT OF JAMES K. WALLS, EXECUTIVE DIRECTOR,
LAKE COUNTY RESOURCES INITIATIVE**

Mr. WALLS. I won't talk an hour on biomass.

Senator WYDEN. There you are. Take the time to do it right.

Mr. WALLS. Thank you, Senator. Thank you very much. It is an honor to be here, sir, and I really appreciate it.

As you know, I'm the Executive Director of Lake County Resources, which was created to carry on the work of a collaborative that's now in its 12th year, not just to carry it on, but to serve as a local place where they could convene and stuff. It's very—been very successful and implemented many of the provisions that are in S. 2895. We've been successfully moving ahead.

When I was first invited to testify, I had a real fear, really, I had to search hard and deep, because I remember the past regional legislations that have occurred and localized, like the Northwest Forest Plan, the Quincy Library Group, and list can go on, and they all wound up a deep litigation. I go, "Whoa, we've been under the radar, maybe we better stay there." But, I have a much greater fear that made me step forward, and that is after we were created, our stewardship group said, "You'll develop a monitoring program," and we did that in our first year. It's been in existence for 7 years now. One of the findings of that program, we've got thousands and thousands of plots, is that 85 percent of our big large ponderosa pines, that Dr. Franklin talked about, are dying out prematurely, 100 to 200 years prematurely.

As I look at the—the Collins Company has a 10-year stewardship contract that guarantees 3,000 acres. As the stewardship group and collaborative looked at what they needed treated, they felt we need to be at eight to ten thousand acres if we're going to get ahead of that curve and save those old pines. So, that's my fear and why I step up, it is for the pines. I believe we can do that through this bill.

I am proud to say too, we were No. 1 on the Collaborative Force Landscape Restoration Act, which I hope remains so, and get to that eight to ten thousand acres where we can get these treatments down into a 20, 25-year span to get this done, so we don't lose those.

The other thing that is very—that our monitoring has showed, as you're well aware, we've got a 300,000 acre beetle kill there. It—and while beetles attack ponderosa pine when they get old and they die, that's natural, that's a—but not the size of this thing, it's humongous. What we found out, if we leave—if it was to burn today, and sometimes I think I should go put a match to it, it would survive, the forest would survive, because temperatures on the soil as the tree stands would only be about 100 degrees Centigrade. If we let them fall and jackstraw into that soil, our monitoring shows that they will reach 200–400 degrees, and then the soil actually melts and plasticize, and water won't penetrate it any more. Then you're looking at decades to reach that forest back.

There's many areas, as Dr. Franklin found when he did the plan for the Klamath Tribe, of encroachment, I believe if I remember

right, he can correct me, about 100,000 acres out there of encroachment, and we need to be diligent, saving those areas that the lodge pole pine encroached on so that they don't go through that, and we can get those natural areas back to natural conditions.

I couldn't leave without mentioning the jobs part of your bill, because as you're aware, in our plan was to get all the small material out, we needed a new small diameter mill and a biomass plant. The Collins Company stepped up and put a \$6.8 million mill in. That save 85 jobs, because the other alternative was not good. The biomass plant will put in a \$70 million investment. That will be 18 well paying, above average for Lake County, jobs in that biomass plant, and we're months away from a final decision, and it will put 50-75 in the woods.

We did a calculation of what would that mean to the county, because it's a stewardship contract, no timber receipts. When all the abatements and incentives are gone, that biomass will be paying the county over \$400,000 a year in local taxes. It will be paying the town of Lakeview \$800,000 and some. It will pay the hospital equivalent amounts. It adds up to \$1.8 million that could go to our hospitals, our library, or our schools. So the economic impact is as important as the ecological. That's why I'm here to support this bill. I looked at it as a threat and it would have been easy to stay under the radar, but I felt it was important to step forward.

Thank you, sir.

[The prepared statement of Mr. Walls follows:]

PREPARED STATEMENT OF JAMES K. WALLS, EXECUTIVE DIRECTOR, LAKE COUNTY
RESOURCES INITIATIVE

I am Jim Walls, Executive Director of Lake County Resources Initiative (LCRI), a non-profit formed in 2002 to work on natural resources projects that are ecologically and economically based. It is an honor to be here and testify before this distinguished subcommittee on Public Lands and Forests and specifically about the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act.

Lake County is 75% federal lands, with the Fremont-Winema National Forests and Bureau of Land Management being the biggest landowners. Lake County is in the south central dry interior of the state of Oregon. The Fremont portion of the National Forest lies roughly between the towns of Lakeview, Klamath Falls and Bend, Oregon just north of the California/Oregon border. The major tree species include ponderosa pine, juniper, lodgepole pine, and at higher elevations white fir. Most of these trees are adapted to summer drought and extreme temperature fluctuations due to the arid nature of the region. The 10-20 inches average precipitation occurs from the autumn through the spring and as a result the summers are dry and hot. At the height of logging Lake County supported 5 mills; today only the Fremont Sawmill owned by The Collins Companies is remaining. As a result of the curtailment of logging, Lake County was the only county in Oregon that experienced a net job loss during the 1990's.

Historically, forest management of the Fremont focused on aggressive fire suppression and logging of large old-growth ponderosa pine trees. Consequently, forest composition and natural fire disturbance regimes have been dramatically altered, increasing the risk that abnormally intense fires, insects, and disease will devastate the remaining old-growth and other forest ecosystems. The impact of fire suppression and old-growth logging is greatest for the low-elevation ponderosa pine and mid-elevation mixed conifers. Many areas have missed 7 to 10 fire-return intervals, and mature forests of large, widely spaced trees have declined more than 50 percent from historical levels. Middle-aged forests, less than 100 years old, are substantially more common than they were historically.

I am pleased to testify in support of S. 2895 because many of the objectives of the bill are currently being carried out in the 500,000 acre Lakeview Federal Sustained Yield Unit in the Fremont-Winema National Forest. We have a 12 year old collaborative known as the Lakeview Stewardship Group comprised of national, regional and local environmental groups, industry, local units of government and local

citizens. The Lakeview Stewardship Group in partnership with the Fremont-Winema National Forest just submitted a proposal under the Collaborative Forest Landscape Restoration Act (CFLRA)—a 500,000 acre proposal covering the Lakeview Federal Sustained Yield Unit. One of the requirements for the act was a landscape restoration strategy and our collaborative did such a strategy in 2005. We specified priority treatment areas to reduce fuel loads and ecological restoration work which needed to be accomplished. The collaborative up-dated the plan in 2010 for submittal in the CFLRA proposal and I am proud to say the proposal was ranked as Region 6's top priority when they submitted it to the Forest Service National office last month. The Lakeview strategy estimates that 8,000 to 10,000 acres need to be treated if we are going get ahead of the forest health issues and do so in a time frame that will make a difference.

An early priority of the collaborative was for Lake County Resources Initiative (LCRI) to develop a monitoring program around the restoration being carried out in Unit. In the 7 years that the monitoring has taken place we have discovered considerable evidence pertaining to eastside forests which shows why accelerating treatments is critical. The monitoring plots show that 85% of our old growth forests are dying 100 to 200 years prematurely as a result of fire suppression and the resulting overstocking that has occurred. Currently the Collins Companies has a 10-year Stewardship Contract with the Forest Service guaranteeing 3,000 acres/ year for 10 years, but at this rate it will be too late to save these old growth trees. For this reason the collaborative believes treatments need to be increased to 8,000 to 10,000 acres/year, if we are going to make a difference. The good news is that many of the old growth trees are showing a positive response to treatments. However, other stands that we are watching may show that treatments have been too late.

One of the most significant findings of the monitoring program is the effects of uncharacteristic severe fires on our eastside soils. This combined with over 300,000 acres of Mountain Pine Beetle kill on the Fremont-Winema National Forest is a disaster waiting to happen. Our plots show that if a crowning fire occurs and there are few downed trees on the forest floor, soil temperature will reach somewhere around 100 C and recovery will occur in relatively short order. However, if the forest floor has considerable down woody debris or if trees killed by the Mountain Pine Beetle start to fall and jackstraw, temperatures can reach 200-400 C, causing major soil damage. Soils at these temperatures actually start to plasticize, making them impenetrable to water and delaying tree regeneration for decades.

I cannot speak about Westside forests, where there is ample moisture to support dense stands. Here, however, on the eastside we must accelerate treatments in order to restore natural fire regimes and prepare these forests for climate change. I believe the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act can be a pilot and if it is as successful as we anticipate, then it might be extended to the remaining States that have similar dry forests.

My testimony thus far stresses the environmental needs for our eastside forests, but there is also the jobs aspect that this bill could promote. If we accelerate thinning necessary to get ahead of forest health issues and prepare these eastside forests for climate change, we must have the infrastructure in place to use all this small diameter material. As a result of the collaborative and the 10-year Stewardship Contract, the Collins Companies has invested \$6.8 million in a new small diameter sawmill, and Iberdrola Renewables is in the final efforts of due diligence on a \$70 million dollar, 25 MW biomass plant. These investments have resulted in retaining 85 sawmill jobs, and will create 18 jobs at the biomass plant and 50-75 jobs in the woods. An Oregon Business 2010 report estimates these investments will have an annual payroll of over \$18 million and will pay over \$1 million in income tax to the State of Oregon. South Central Oregon Economic Development District estimates that local taxing districts such as the Town of Lakeview, Lake County, Library, Hospital, cemetery, school district, etc. will receive an estimated \$1.8 million yearly in taxes.

In conclusion, not only does forest restoration make environmental sense, it can be an enormous economic opportunity for struggling rural communities. There is a lot of talk about creating a green economy, but it is places like Lake County that are making it a reality. Thank you for your time and the privilege of testifying.

Senator WYDEN. Thank you very much, and it's one of the reasons why we so wanted you here, because going over to Lakeview and seeing what you've done. I mean, it is a really heroic effort, and I'm very appreciative of your involvement here. I just want to ask one question before we move on, because it takes your breath

away, this point that you make with respect to the consequences of neglect. I think you used the word, it plasticizes.

Mr. WALLS. Yes, there's been several terms.

Senator WYDEN. Take that, and perhaps Professor Franklin, lay out what plasticizing and area is all about, because, I mean, I think that really drives home the consequences of neglect. So, Mr. Walls and Professor Franklin, take this and amplify it a little bit.

Mr. WALLS. Not being the scientists, I'll take it from my—what my monitoring crew and the scientist and the head of that is. Basically it's a melting of the soil and there's several terms they've used to me on that. It gets that hot, and we've done a lot of tests on it, and it makes a hard crust over the top of it.

Senator WYDEN. It's almost like a plastic product?

Mr. WALLS. Yes, water won't penetrate it.

Senator WYDEN. Water will not penetrate it?

Mr. WALLS. Will not penetrate it, yes. It only happens when the trees start to fall and they start jackstrawing, and so you've got all this mass on the forest floor. We've Mount Muzama ash soil, so we may be—every area, I don't know if this does the same thing, but it does it on that Mount Muzama ash-type soil. We've done numerous studies on that, and basically it just seals it over. We've got 10 years of plots now where there's not a single tree growing where that's happened. There's over brushes coming in, I'm not saying nothing comes in, but there's not trees.

Where, if you go in the standing, if it was standing right now, in a few years you've have trees coming up and it would be great, if it doesn't do it that way.

Senator WYDEN. Dr. Franklin, do you want to add anything to that?

Mr. FRANKLIN. No, it's very characteristic when you get very high temperatures, that you get basically fusion of the soil particles, and so, it loses its structure fundamentally.

Senator WYDEN. OK.

Mr. Hoefflich, welcome.

STATEMENT OF RUSSELL HOEFLICH, VICE PRESIDENT AND OREGON DIRECTOR, THE NATURE CONSERVANCY

Mr. HOEFLICH. Thank you. Chairman Wyden, I want to thank you for this opportunity to give testimony to the subcommittee in support of this bill.

My name is Russ Hoefflich, I serve as the Oregon Director of The Nature Conservancy, as well as the Vice President for the Nature Conservancy. We're a leading conservation organization working around the world to protect the ecologically important lands and waters that we need for nature and for people. We've been working in Oregon for nearly 50 years. Nationally, we've been for over the protection of about 119 million acres and we have about 1 million members supporting our efforts. We have a long history of working on public and private lands in on-the-ground collaborative and forest habitat restoration projects in many of the States in the west.

We applaud you, Senator Wyden, for your leadership in bringing together diverse groups of Oregonians to craft pioneering legislation that will put people to work restoring Eastern Oregon's forests. When Eastern Oregon was ground zero for the timber wars,

your bill has done something unique. It has united leaders and it is providing a platform for collaboration, landscape scale solutions to a landscape scale problem, truly a unique effort. Thank you.

We also commend your leadership for bringing the conservation community together and bringing them together to address, with the business industry, not only the biological issues, but the human community issues as well. With great thanks, we also praise the U.S. Forest Service, who has been working diligently and as best as they possibly can to innovate, to bring communities together in collaborative projects throughout Oregon. They continue to make significant investments in forest health with your financial support and your leadership.

With the guidance, and I just want to move from my script here and just mention the unique effort that you have made to bring 2 of the most preeminent scientists in the Nation associated with forest health treatment, into the fold to craft your bill. It is a great, great honor to have Jerry Franklin and Dr. Norm Johnson working on this bill and help supporting the industry and conservation community. This is unprecedented, it's nature, from a national perspective, and I just thank you for bringing them into the fold.

We need to restore forests at the scope of the problem and put more people to work in the woods, and this bill will do exactly that. The urgency—you've heard about this from others, it could not be greater than it is today. Every day we face very, very significant problems. There's again, depending on what statistics you use, there's between 9.5, other say as high as 13 million acres of the forest and woodlands that are highly departed, if you include juniper, particularly in this region, from the historic conditions, putting them at risk of unnaturally severe fire, insect damage, disease, which in turn threatens our streams, lakes, rivers, and the safety of many, many of the communities in your State.

Today, our forests lack, as Jerry has said and others have said, the resiliency of healthy ecosystems, putting the greatest risk of catastrophic change, particularly in the face of climate change. At the same time, our local communities and the mill structure is faltering too. Now is the time to put the eastside communities back to work and focus on the restoration and the health of our forests.

The need to act is clearly now, and the pace of on-the-ground restoration must accelerate, that's the critical element of your bill. To get to the scale of the problem, this legislation establishes restoration and recovery roadmaps. This enables forest managers and communities to work together to prioritize and initiate on-the-ground restoration work that will improve the health of the Eastside National Forest, watersheds, and clearly the local economy.

The foundation of this legislation is trust, collaboration, and yes, the science. Ultimately, the legislation will allow us to establish sound on-the-ground science, as Mr. Wall has indicated, is so critical to these projects. Ensuring that old growth and repairing areas are protected and restored is fundamental to your bill. Saving public resources from the costly catastrophic fires and avoiding the risk of having people injured in the process of fighting fires is absolutely critical.

On a family security level, this bill will provide near-term timber jobs, it will provide the supply that people absolutely need, and that will translate into hitting the problem at the scale that we're talking about. The bill helps to maintain our timber infrastructure, that is in critical need at the moment. It will provide the raw material that is necessary to get to the problem. Again, building trust, having the science, is absolutely critical.

Without this timber infrastructure however, meaningful forest restoration is simply not possible. Many of the other States in the Nation have come to recognize that forest health is critical, but they have waited too long and they have lost their mill infrastructure, the labor force, and the heavy equipment necessary, and the skill sets necessary to do the work. We still have a few moments left, and thank you for making the effort to bring this forward at this present time.

Thank you.

[The prepared statement of Mr. Hoefflich follows:]

PREPARED STATEMENT OF RUSSELL HOEFELICH, VICE PRESIDENT AND OREGON
DIRECTOR, THE NATURE CONSERVANCY

I want to thank you, Chairman Wyden, for this opportunity today to offer testimony before the Subcommittee on the 'Oregon Eastside Forests Restoration, Old Growth Protection, and Jobs Act' (S. 2895).

My name is Russ Hoefflich, and I serve as the Oregon State Director and Vice President of The Nature Conservancy, a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. We have been working in Oregon for nearly 50 years. Nationally, we have over a million members and have protected more than 119 million acres of land. We have a long history of working with public and private partners in on-the-ground, collaborative forest habitat restoration projects to achieve lasting, measurable results.

We applaud you, Senator Wyden, for your leadership in bringing together a diverse group of Oregonians to craft pioneering legislation that will put people to work restoring Eastern Oregon's forests. Where Eastern Oregon was ground zero for timber wars, the Senator's Bill has united leaders and provided a platform for collaborative, landscape-scale solutions to a landscape-scale problem.

We also commend the leaders of the conservation and industry groups for their willingness to set aside differences and to chart a better future for Oregon's natural and human communities. With great thanks, we also praise the dedicated team at the U.S. Forest Service, who have been our partners on innovative projects throughout Oregon, and have made significant investments in forest health.

The 'Oregon Eastside Forests Restoration, Old Growth Protection, and Jobs Act' is a historic science-based collaboration for positive solutions in our forests. We need to restore forests at the scope of the problem and put more people to work in the woods. This Bill will do just that.

The urgency couldn't be greater. Every day we face severe problems in our Eastside forests. About 9.5 million acres of our forests and woodlands are highly departed from their historical condition, making them at risk of unnaturally severe fire, insect damage and disease, which in turn threatens our streams, lakes, rivers and the safety of communities. Our forests lack the resiliency of a healthy ecosystem—putting them at greater risk of catastrophic change in the face of climate change. And our local communities and mills are struggling, too.

The need to act is now, and the pace of on-the-ground restoration must be accelerated. To accomplish this, this legislation establishes a restoration and recovery roadmap. This enables forest managers and communities to work together to prioritize and initiate on-the-ground restoration work that will improve the health of our Eastside national forests, watersheds and economy. The foundation of this legislation is trust, collaboration, and science which will allow us to advance restoration work to larger landscape-level scales. Ultimately the legislation will allow us to:

- Establish sound science as the underlying principle of all decision-making.
- Ensure that old growth and riparian areas are protected and restored.

Save public resources from costly fire suppression efforts by proactively restoring the health of forests.

- Provide near-term timber supply for our struggling Eastside mills, translating into jobs in hard-hit communities.
- Maintain our timber infrastructure by giving industry the confidence, surety, and security that the raw materials they need will be available over time; without our timber infrastructure, meaningful forest restoration is not possible.

The Nature Conservancy has seen first-hand how collaboration can make a difference on the ground, and we have an extensive history of working on collaborative and scientific approaches to forest restoration in Oregon. The Eastside Forest Restoration Bill will help us and our partners apply lessons learned from these efforts (including four restoration collaboratives facilitated by the Northwest Fire Learning Network) and expand them to a larger scale.

Finally, this bill represents our best hope and our best opportunity moving forward for Oregon's Eastside forests. Still, we recognize that we must work together to secure the supporting funding to realize the vision that you, Senator, the industry groups, and conservation groups have created in this Act.

Thank you again for your impressive work and this opportunity.

Senator WYDEN. Mr. Hoeflich, thank you very much. I don't want to make this a full-fledged bouquet tossing contest, but suffice it to say, the Nature Conservancy is always there trying to find ways to bring people together and look for innovative approaches on natural resources issues. So, we very much value working with you and I'll ask some questions in a moment.

We now have Mr. Lillebo, well known in these parts as a great advocate for the environment, and go ahead.

STATEMENT OF TIM LILLEBO, EASTERN OREGON FIELD REPRESENTATIVE, OREGON WILD

Mr. LILLEBO. Thank you. I think I'm well known for some other things too, but we don't want to talk about those today.

[Laughter.]

Mr. LILLEBO. I did want to say, you were asking about, what were the odds of this happening, conservation—some conservationists, some of the timber industry, getting together to come up, you know, with a compromise. I guess I'd kind of say, I think you would have a better bet with BP stock than having this actually happen.

So, anyway, good morning or good afternoon, Ron, we know each other. Oregon Wild supports the Eastside Forest Bill, S. 2895.

So anyway, a little background. I was born and raised in Grant County and other parts of eastern Oregon, and I still call the dryer side of the Cascades my home. Kind of growing up in timber country, I did what kind of came naturally and spent summers in the woods, eventually being a timber faller, thinner, and tree planter. But as I grew up in the 1970s and 1980s, after kind of an explosion of industrial logging, the forests I'd known as a kid were just so drastically changed that it really, really worried me. At that time my grandfather, Blondie, born in Maine in 1900, grew up as a timber faller, he worked his way across the United States cutting old growth from Maine to Minnesota and on to Oregon.

Anyway, I still remember the day when my grandfather said to me, he said, "Timmy," and yes, Blondie used to call me Timmy, and unfortunately some of my friends still call me Timmy. Anyway, he said—

Senator WYDEN. This is getting to be Friday afternoon.

Mr. LILLEBO. It is, it is.

Anyway, he said, “Timmy, as we cut across the country, we thought the old growth would never end. It’s mostly gone now and you should cherish what little is left of those big trees.” At that time I decided Blondie was right, and I’ve dedicated the last 35 years of my life trying to protect our dwindling old growth forests and protect wilderness for Oregon Wild.

I think that now is the time to protect the last of eastern Oregon’s old growth with the approach laid out in your bill, and I really appreciate it.

For years, my work involved filing appeals, challenging illegal logging sales in court and going head to head with timber industry representatives. I learned a pretty good headlock in those years, and you had to because it was pretty tough times, pretty serious.

Anyway, today it means something different. Today, protecting eastside forests also mean working to restore those forests after decades of overharvest and after stopping natural fires. It means sitting at the same table with former adversaries and working together to find a solution. Believe me, I never thought that I’d be sitting here with the likes of Boise Cascade’s Tom Insko right over there, but really, I think it’s good to be here with him, and it’s good to be supporting this bill.

Now, I think we found that the best available science tells us that past management has left some of our dryer eastside forests out of whack. By the way, out of whack is a technical science term. We can ask Dr. Franklin about that, he’ll tell us. Anyway, and we think the careful restoration management, using prescribed fire, using mowing, and yes, chainsaws is a crucial strategy to get back to more natural conditions.

I have become a believer in this restoration paradigm, using science, and I have worked with the U.S. Forest Service, Warm Springs Tribes, and other community stakeholders to design an old growth restoration thinning project on the Deschutes National Forest near Black Butte Ranch. The Glaze Forest Restoration Project aims to reduce the risk of forest fires to private lands and homes, and it aims to protect old-growth and protect wildlife habitat, by removing small unnaturally dense trees.

Anyway, this winter crews went out and began implementing the thinning prescriptions on that project. I am glad to see it. It’s a learning process, and I think we can all learn from it, but I would like to see more of these restoration concepts applied in more places.

Hey, I like wilderness as much as the next guy. Maybe a little more than the next guy, Tom. Anyway, but I think we know now more than ever there is common ground between some of the conservationists, some of the timber industry, about 2 ideas, Oregon’s old growth forests are too few and too important to log, and 2, active restoration in certain dryer areas can improve forest resiliency and provide jobs and wood products for rural economies for decades to come.

I think this bill reflects the shift in science-based restoration that is needed on a lot of our national forests, not everywhere, there’s places that don’t need anything like this, but there are plenty of places that do. It would implement the common ground reach between the different interests, it would provide meaningful protec-

tions for old growth forests and important streams, salmon and steelhead streams, it would ensure that necessary restoration work and the associated wood products would be produced for benefits of the local communities. A panel of respected scientists would recommend actions and priorities, and I think that's a real key element to this, actually having a panel that would say, "Hey, we'll make recommendations on what should happen out there." Anyway, I think it's a good—implementation would be a big step forward.

Just to wrap up here. The reality in the forest has changed and Oregon Wild has changed. Yes, we still work to stop old growth timber sales, no doubt about it, and we protect the last of our wilderness. Hey, how about that Mount Hood Wilderness Bill? Thanks a lot Ron Wyden, appreciate that.

We also see there is a value in science-based restoration of our forests. We feel it's important to work with scientists, communities, timber interest, Federal agencies, politicians, everybody to move forward with the approach in your bill, so that these Oregon treasures are here for future generations.

Thank you.

[The prepared statement of Mr. Lillebo follows:]

PREPARED STATEMENT OF TIM LILLEBO, EASTERN OREGON FIELD REPRESENTATIVE,
OREGON WILD

Thank you for the invitation to testify today in support of the Oregon Eastside Forest Restoration, Old-Growth Protection, and Jobs Act. We thank you Senator Wyden for introducing your Eastside Forest Bill.

I was born and raised in Grant County and other parts of eastern Oregon, and I still call the drier side of the Cascades my home. I love exploring the forests of eastern Oregon and hunting in the backcountry.

Growing up in timber country, I did what came naturally and spent summers in the woods as a timber faller and thinner. But starting in the early 1970s, it was easy to see that something was changing in the forest. By the late 1980s—after an explosion in industrial logging—the forests I had known as a child had been drastically altered.

In 1987 alone, over 1.5 billion board feet of timber was cut down in eastern Oregon's federal forests. At the same time, the move towards automated mills and massive timber exportation meant that much of the local economic benefit from logging wasn't even staying here in Oregon—but we were all paying for the decline of our forests.

My grandfather, "Blondie", born in Maine in 1900, grew up as a timber faller. He worked his way across the U.S. cutting old growth from Maine to Minnesota and on to Oregon.

I still remember the day when my grandfather said, "Tim, as we cut, we thought the old growth would never end. Well, it's mostly gone, and you should cherish what little is left of the big trees." I decided "Blondie" was right, and I've dedicated the last 35 years of my life to protecting our dwindling old-growth forest ecosystems working for Oregon Wild. It's time now to protect the last of eastern Oregon's old-growth with the approach laid out in Senator Wyden's bill.

For years, my work involved driving all over eastern Oregon filing appeals, challenging illegal logging sales in court, and going head to head with timber industry representatives in public debates and in the media. Today, it means something different. Today, protecting eastside forests also means working to restore it after decades of over-harvest and exclusion of natural fire from the landscape. It means sitting at the same table with former adversaries and working together to find a solution to unhealthy forests and streams. Believe me; I never thought I would be sitting here with some timber industry folks supporting the same piece of legislation. Miracles still happen.

Throughout my time as an advocate for Oregon's wildlands I have let science be my guide. I fought to protect Wilderness and roadless areas because ecologists said these were the last, best places for native wildlife to survive and thrive. I worked

to protect forests along streams when biologists warned of the dire impacts riparian logging would inflict on threatened salmon and trout.

Now, the best available science tells us that past management has left some of our drier eastside forests out of whack and that careful restoration using prescribed fire, mowing, and, yes, chainsaws is a crucial strategy to get them back to more natural conditions.

I've taken this new information to heart and become a fervent believer in this restoration paradigm. Over the past few years, I've worked with the U.S. Forest Service, the Warm Springs Tribes, and other community stakeholders to design an old-growth restoration thinning project on the Deschutes National Forest near Black Butte Ranch. The Glaze Forest Restoration Project aims to reduce the risk of forest fires to adjacent private lands by removing small, unnaturally dense trees; protect old-growth trees and wildlife; and restore a more natural landscape where low-intensity fires can once again play a natural role in maintaining the health of the land. The project considers the needs of a variety of wildlife and plants, and applies science-based restoration principles that build diversity and long-term forest health into the picture. This winter, crews began implementing the prescriptions that were so carefully worked out, and I am proud to see it. In fact, I'd like to see projects like it done in many more places.

Many environmental organizations—Defenders of Wildlife, The Nature Conservancy, Pacific Rivers Council, National Center for Conservation Science and Policy, the Klamath-Siskiyou Wildlands Center and Oregon Wild, to name a few—support the science-based restoration that would be implemented under this legislation.

Now, more than ever, there is common ground between conservationists and the timber industry around two ideas: 1) Oregon's old-growth forests are too few and too important to log; and 2) active restoration in certain drier areas can improve forest resiliency and provide jobs and wood products for rural economies for decades to come.

This bill reflects the shift in science-based restoration that is needed on the National Forests of eastern Oregon. It would implement the common ground reached between conservationists and the timber industry, effectively ending decades of division and controversy. It would provide meaningful protections for old-growth forests and important streams and it would ensure that necessary restoration work and the associated saw-logs would be produced in a timely manner for the benefit of eastern Oregon's communities. A panel of respected scientists would recommend restoration actions and priorities. While not exactly what Oregon Wild would have written, the bill has sideboards and protections enough that we feel confident its implementation will be a big step forward.

The reality in the forest has changed. Oregon Wild has changed. Yes, we still work to stop old-growth timber sales and protect the last of our wilderness, like the Mt. Hood Wilderness Bill, thank you Senator Wyden, but we also see the value in science-based restoration of our forests. We feel it's important to work with scientists, communities, timber interests, and federal agencies to move forward with the approach to protecting and restoring eastern Oregon's forests and watersheds found in your bill Senator Wyden, Senate Bill 2895, so that these treasures are here for future generations.

A poll shows Oregon voters—including a strong majority of those living in the vast Eastern Oregon congressional district that would be most affected—support a compromise forest management plan that allows thinning while protecting old-growth trees and limiting new logging roads.

The poll by Public Opinion Strategies showed that 77 percent of respondents support the Oregon Eastside Forest Restoration Act drawn up by Sen. Ron Wyden, conservation groups and timber industry representatives. Half the respondents interviewed are residents of the 2nd Congressional District, which covers much of Oregon east of the Cascades. About 75 percent of them approve of the plan, according to the poll.

Senator WYDEN. Mr. Lillebo, thank you very much, and there's never been a discussion about natural resources that you have participated in that's been dull.

[Laughter.]

Senator WYDEN. I thank you, I thank you again on a Friday afternoon for making sure you drive home with what this discussion really is about, and that's finding, you know, common ground. I know, just as has been the case, Strinsko talks about that not always does everyone who's part of your natural constituency agree,

because I know you've had to push the boundaries, in terms of some of these issues with folks in the environmental community, on some projects that are actually fairly close to here.

Mr. LILLEBO. Oh yes, that's true.

Senator WYDEN. We're going to have some questions about that.

Mr. LILLEBO. I think I've got some bounties on my head from both sides of the issue right now, but, you know, I can live with that, because I think we're going in the right direction.

Senator WYDEN. Very good.

Let's start, if we could, with you, Dr. Franklin, because I think you've laid out the case, again today, and you have in your important articles on these issues, certainly, in the last 4 or 5 years, about the consequences of failing to undertake the treatments.

In your view, what scale and pace is need to really treat the lands now, to play catch up ball?

Mr. FRANKLIN. I think, you know, Norm and my view on this would be, first of all, this has to be approached at the landscape scale. If we had our druthers, we would approach it at effectively the scale of the dry forest and dry forest landscapes throughout the Federal lands in eastern Washington and eastern Oregon, we'd do the whole thing and would do it a planning sense very quickly with an alpha team, a really first-rate team of managers and researchers working together that know the land, know the issues. So, it needs to be done on a large spatial scale. It needs to be planned and implemented that way.

Second, in terms of time, I think given what is happening, we generally would like to see a program that would accomplish effectively the restoration treatments that are needed on that entire landscape in a 20-year period. This is what we proposed when we did the plan for the Klamath. It would be a reasonable plan, however, you know, obviously the agency at this point would probably not be capable of doing it that quickly, at their current level of staffing.

So, you would have to effectively increase the work force in the Forest Service, in particular, in order to be able to do a program on that kind of a time scale.

Senator WYDEN. Any of you others like to comment on this question of scale and pace?

Mr. Hoefflich.

Mr. HOEFlich. If you assess the present activities that are occurring in Oregon, and we've heard from others, and the estimates are somewhere between 20 to 30,000 acres being treated per year. The best of scientists who have worked with Norman and some of our staff from our fire learning network, have identified the need to be treating roughly about 500,000 per year. How you ramp up to that is going to be the question. Having community collaboratives under way designing and executing I think is going to be strategic, but we're going to have to get the resources and build the budget so the Forest Service—but get away from the point where we're spending such a high percentage of the Forest Service budget fighting fire, we've got to get them proactively restoring versus the fighting.

Nineteen percent of the Forest Service budget was spent fighting fire 10 years ago, we're now up to 50 percent of their budget being

spent fighting fires. We need to reinvest proactively in avoiding those catastrophic fires and putting the communities to work doing that.

Senator WYDEN. Not only is that the case, but these 3 staffers constantly, every year, as the fires come in and the cost keep rolling in, watch the service have to move money from one account to another. It's almost a shell game. I've tried to point out, and I think Mr. Gladdard knows that, you know, during the years when Senator Craig chaired the subcommittee and I was the ranking member, we would both point out that this was a bipartisan ripoff, in effect, where you would short the prevention accounts and have to constantly shovel more money out the door, in terms of fighting fires. So, clearly if we can get into these areas early and do the kind of thinning we're talking about, we're going to reduce the prospects of every year having to move money from the fire accounts to prevention accounts and back and forth trying to figure out how to move the pee around in order to keep on top of literally conflagration. So, it's a good point.

Anything else from the panel on scale and pace?

Mr. Walls.

Mr. WALLS. Scale and pace in my testimony, Senator, I said 20 years too. I remember the conversation when the Collins Companies got the contract for 3,000 acres a year for 10 years, and Wade Mosby called me, he says, "Jim, we can't survive. We will not over-harvest our land to feed our mill. Our priority is to the land." I bring this because we've got to reauthorize stewardship contracting in the future. I said, "Wade, trust me, retained receipts and stuff are going to get us there." It did, and right off the bat we were hitting our mark of being up that 8-10,000 acres, and then the current market hit.

But, you know, with that coming back and bills like this, that's what we've got to aim for. We've got to notch that up a bunch.

Senator WYDEN. Good point.

Let's move to a specific issue, and I'm going to send this your way, Dr. Franklin.

Do you have another copy for Dr. Franklin?

This is about the Glaze project that you touched on in your written testimony, Dr. Franklin. It's my understanding you've been to it. There was a recent article, this is what I'm showing you here, in the Bend Bulletin, that basically outlines the opposition to the project by the Sierra Club, which had recently endorsed the project. I guess the eastern Oregon field organizers suggested that there was no science to support cutting any trees larger than 14 inches in diameter. Why don't you, because you've had a chance to actually see the project, give us your professional assessment of this perspective, and in your judgment, they integrity of the restoration science used to develop the Glaze project.

Mr. FRANKLIN. OK, well let me begin by simply that, you know, this is the kind of argument that you get into if you think it's only about fire and fuels, and it's not. It is about the forest density, and it's very clear, in fact, that there are often trees 14, 16, 18, 20, 24 inches that, in fact, represent serious threats to the old pine trees. OK, so this—obviously the individual who was criticizing this has not seen the literature with regards to the consequence of excessive

stand density, and the effect that it has on the growth and ultimately the survival of the old trees. So, they don't understand what the stands were like historically.

In this particular case, this tree was, I think, was next to an opening, it was next to a meadow. One of the very important things that we need to do in restoring these landscapes is, in fact, to restore the non-forested, the historically non-forested portions of those and get that hardwood component that's so important to the wildlife back.

Now, to come to the Glaze project specifically, I've been there twice, once with my class and once on my own. I thought that the silvicultural prescriptions were extraordinary, extraordinarily good, creative, appropriate, and protective of the core ecological values in those areas. So, you know, this may be damning with faint praise, but I don't see that I could improve in any way on that silvicultural prescription, and no one would accuse me of being a timber beast, I believe.

Senator WYDEN. Don't remember too many rallies accusing you of being a timber beast.

Mr. FRANKLIN. No, I don't think so.

So, a superb silvicultural effort.

Senator WYDEN. Dr. Franklin, thank you, and I appreciate your walking us through it, because I read that article and clearly this has Mr. Lillebo featured in it too, and I'm sure he's got some—got some cuts on his back from getting in the middle of all this with some of his friends, and I appreciate your walking us through the science on it.

Let me turn, if I could, not to you, Mr. Insko, on an issue that, to me, doesn't get as much attention as it should, and I think it's one where folks in the forest product sector deserve a lot of credit. That is, you all have put considerable investments in new technology. I think it would be good to elaborate on what the investments are that get you to this point, where if we can get this legislation passed and you can get additional fiber to the mills, you can use the technology you now have more fully. Then talk to me a little bit about what might be further technological innovations that we could see in the future. Because as I look at the great challenges of our time, and Mr. Lillebo was kidding when he was talking about the chances and BP and what have you, but the great challenges of our time involve consistently, how are we going to be innovative.

I often think that I want to be chair of the innovation committee, because whether it's energy or forestry or healthcare, this is the real value added for the future, and it's true in forestry and it's true in energy and oil and healthcare and everything else. So, talk to us a little bit, in terms of the technological innovations you've made at the Boise system the last couple years, and what we could possibly see in the next few years if Boise is able to hang in this area as a result of getting additional fiber?

Mr. INSKO. Big subject, so I'll try to keep somewhat focused. Just in terms of the changes we've gone through as a company in the last 10 to 15 years have been primarily driven by resource, obviously, given that's the driving force behind our business. So, we've retooled our facilities, and I'll use the Elgin plant as the example,

where today, we bring everything from pulp wood, which is considered non-merch wood down to like a two-inch top, so the tops of trees and dead material, into that plant. We try to merchandise any saw log component out of that, in addition to the natural saw log volume that get.

From that, we produce chips for the paper mills, and then we are producing veneers and stud lumber at that location. As I said, a 10.4 inch diameter is not a large old growth log. In fact, our maximum diameter we can handle at that location is 33 inches. We're not after large old growth trees out in our national forests. We don't see those as something that's even really attainable, quite candidly, because it hasn't been.

Where we have opportunity, I think, going forward, is in the biomass front potentially. If there's going to be successful biomass development in our opinion, it's going to be in conjunction with existing industry, not by itself. The economics of biomass suggest you need to be doing that in combination with other activity out in the forest, so that the overarching economics makes sense. But if you only focus on one component, the economics won't pencil out, it will always have to be a subsidized industry, which we don't believe we want to see in the future.

So, what we would look at in Elgin, is the possibility of co-gen construction there where we would be producing energy and adding that—

Senator WYDEN. Not the facility you have.

Mr. INSKO. Exactly, the existing facility.

Senator WYDEN. You would add a significant co-generation—

Mr. INSKO. Yes.

Senator WYDEN [continuing]. Program.

Mr. INSKO. That's the possibilities out there if there is active management and a supply of fiber that you can count on. But these aren't small projects, as many of you know. To put in a 25-megawatt co-generation plant, you're talking about \$75 million. That's a lot of money and you have to have some sort of assurance that you're going to have fiber to support that kind of investment. So if we saw an opportunity out there, that's definitely something that fits well with our existing infrastructure, but would add to the jobs and our long-term viability.

Senator WYDEN. Let's go right to you, Mr. Walls, because Mr. Insko mentioned biomass, and we have, of course, a separate biomass section in the bill, because it is so important. Lots of people in government and politics talk about biomass. You're one of the few people who's actually a practitioner in the biomass field. Any suggestions for the biomass section of the bill?

Mr. WALLS. I'm not only a practitioner, some accuse me of making a career out of it, which I have probably. I think, you know, technology-wise—and I totally agree, by the way, biomass has to be with primary producers, a saw, a mill or something, it's not a standalone industry, it doesn't pencil out.

The other things, and I know we're working on it with E Petrol on this plant, is increasing pressures and doing stuff like that, that it takes less volume to go in and more output, you're increasing efficiencies is what you're doing. That technology is being worked on, and I think that's some of the future that's going to be.

Senator WYDEN. Final question for Mr. Hoefflich and Mr. Lillebo, any additional thoughts on collaboration. That's what this bill ultimately is all about. In other words, we are trying to break the gridlock. I think Mr. Webb, who's with us, still makes a valid point, that if you had sufficient funding, No. 1, and an actual way to jumpstart the process of breaking, you know, the gridlock, you wouldn't need legislation. We just haven't had either one, and the 2 actually, in my view, go hand in hand. But that goes to the lessons of collaboration over the years.

Do any of you have any final thoughts you'd like to add on—on how we actually put in place these collaborative efforts in the real world?

Mr. HOEFlich. Thank you. This is a critical question. I think the key has been to bring the communities together to have the conversations. The question is, what do they need in order to make informed decisions. Having scientists available, having expertise from the Federal agencies, my carrier and the Governor have done extraordinary work to bring State-based resources to the table to help inform the collaboratives. Non-profits are trying to augment wherever they possibly can, but bring the science to the table is absolutely critical.

I think the next big collaborative beyond that, just moving up in scale, is for all of us to, again, unite behind this bill and help to get the financial resources necessary to execute at the scale of the problem.

Senator WYDEN. OK.

Mr. Lillebo.

Mr. LILLEBO. Yes, collaboration I think has been very important aspect of getting out the different issues on forest management. I'm part of several collaboratives, one is over in the Malheur, co-chair with Mike Dillman, who's with Ochoco Lumber there. We have worked long and hard, you know, hours and hours, and sometimes it's a real pain—well, pardon my French—sometimes it's very difficult to go through these projects as a collaborative, but what I think we've found is, we've come to agreements, and maybe we've only gotten 80 percent, 90 percent, but that's pretty darn good compared to what we used to have.

What I think is the—potentially this bill, if we had the science panel, kind of showing here's some parameters for the science, and if people could all agree to that, I think that could help out in helping the collaboratives come out with a better product. They're a learning process, but I think there absolutely essential, but like I say, the bill could help out, you know, empowering those collaboratives and getting more things done on the forest.

Senator WYDEN. Very good.

Gentlemen, we'll excuse you all. Thank you very much for all of your cooperation.

Our next panel, King Williams, a member of the Gazelle Land & Timber LLC, Canyon City, Ivan Maluski, Conservation Program Coordinator, Oregon Chapter of the Sierra Club, and Craig Woodward, owner of Woodward Companies in Prineville.

Gentlemen, thank you all. Let's begin with Mr. Williams, and good to have you again, and I know we worked together on some

land exchanges in the past, and we'll make your prepared remarks part of the record and you just proceed as you'd like.

STATEMENT OF KING WILLIAMS, MEMBER, GAZELLE LAND & TIMBER, LLC

Mr. Chairman and members of the committee, thank you for asking me to come today. My name is King Williams and over my lifetime of living and working in eastern Oregon, I've witnessed the forest change from healthy and vibrant to dead and dying. We've heard that today, we've heard a lot of discussion about that today, but when our national forests in just northeast Oregon can grow 765 million board feet year, we cut less than 100 million and we let 400 million die to mortality, that's a crime.

Our forests lack management, they're plagued by that, but I believe that the risks associated with this act far outweigh any perceived benefits, and will in fact exacerbate the forest management problems and timber supply issues which currently exist in eastern Oregon. The stated goals and purpose of this act appear to be bent, as Jack Thomas said, on increasingly dysfunctional, expensive, inconsistent, and confuse management. He goes on to agree with what I've said here, that the act will further confuse management through a series of mandates, prohibitions, and which will have no basis—little basis in science. The act will increase the inconsistency of management by requiring that the Umatilla, the Wallowa-Whitman, and the Deschutes National Forest manage their lands under 2 separate sets of rules, one set within the State of Oregon on the east side and one set in Washington, Idaho, and on the west side of Oregon. That will be more expensive.

The myriad of new, undefined, and scientifically—unscientifically supported management directions will add to the confusion and dysfunction within the U.S. Forest Service. There are new and creative definitions in the act, such as old growth, which the Society of American Foresters has pointed out, is inconsistent with any definition accepted by the scientific and professional communities. The act further confuses this issue by switching between old growth, to older trees, to older mature trees. What is an older tree? What is older mature tree? What is ecologically appropriate spatial complexity? What is anticipated future condition? What is acceptable levels of carbon cycling? What is the historic level of within forest stand spatial heterogeneity? All require answers.

Within the act, economic and social considerations are placed secondary to anything else, in direct conflict with the Organic Act, the Multiple Use Sustained Yield Act, the National Forest Management Act, and NEPA. At one point, the act states that the secretary shall consider wood harvest to sustain adequate levels of industry infrastructure as a consideration in developing a methodology of management. But what is adequate when we're talking of industry infrastructure? Who decides that? We all know that the obvious answer to that is the courts. There's more litigation.

The prohibitions to cutting trees over 20—greater than 21 inches will actually—may actually prevent a healthy and resilient forest. That's been discussed. It's not a cookie cutter, and this act only codifies the cookie-cutter approach there and with pack fish and in fish with the codification of these regulations. But they also expand

these mandated prescriptions to watersheds that are not covered under pack fish and in fish. Natural resource management is dynamic, it's temporal and requires modifications and adaptations from site to site.

Actions by Congress are absolute, timeless, and aside from a new action by Congress, ironclad. Washington, DC, is not the place to determine resource management. To finance this new set of processes, mandates, and management direction, Congress has included \$50 million, of which only 3 percent can be used for administration, requiring that the balance of the administrative cost for this to be taken from an already anemic timber management budget on these national forests. In these times of skyrocketing national debt, Congress should recognize that our vast renewable natural resources are one area available to produce the income necessary to dig our Nation out of the fiscal mess we find ourselves. We need less restrictions, not more expensive process.

The passage of this act in its present form will result in dramatically increased process, increased litigation, continual ecological decline, increasing economic decline, and a degradation of our social fabric of our communities.

As for resolving the timber supply and economic sustainability problems and improving ecological health and resiliency, the act will fail. In reality, controversial interim regulations based on questionable science will be made permanent by Congress, while our local communities and dependent industries are left with more unfunded regulations and restriction and empty promises of further funding.

[The prepared statement of Mr. Williams follows:]

PREPARED STATEMENT OF KING WILLIAMS, MEMBER, GAZELLE LAND & TIMBER, LLC

Mr. Chairman and members of the Committee, thank you for inviting me here today to testify on SB 2895, The Oregon Eastside Restoration Old Growth Protection and Jobs Act of 2009. My name is King Williams and I am here today as a member of Gazelle Land & Timber LLC, an Oregon limited liability company. Gazelle Land & Timber LLC owns and manages timberlands in Oregon and northern California.

I am also the President of the Grant County Resource Enhancement Action Team commonly known as G.R.E.A.T., Corp. This is the economic development organization in Grant County, Oregon. Although G.R.E.A.T., Corp has not taken a formal position on SB 2895, as a member of the board of directors for the past 13 years my perspective is consistent with the vision and mission of G.R.E.A.T., Corp's Board of Directors.

I am a 4th generation resident of Grant County, Oregon. I grew up raising cattle on our family ranch for the first 36 years of my life. I have owned and operated a small sawmill in John Day until the decline in the federal timber supply forced my partner and I to close the mill like many operations in Northeast Oregon. For the past 10 years I have been managing our company's timber lands in Oregon and Northern California. Our company also owned and operated a cattle ranch relying upon federal grazing in Northeast Oregon. Along with over 45 years of owning and operating natural resource based businesses in Northeast Oregon, I studied resource economics under Dr. Fred Obermiller and received a masters in resource economics from Oregon State University. I have participated in numerous studies and analysis of the effect of natural resource management on the economy of resource dependent communities. One of these was the Oregon Range and Related Resources Evaluation Project conducted by the USFS from 1976 -1986 on the Malheur National Forest. As part of the Management Team for this project I worked closely with the USFS, BLM and other agencies in the design and implementation of this 10 year project. As a result of this project numerous articles were published concerning natural resource management on the forests of Northeast Oregon.

I have not only studied the social, economic and ecological implications of natural resource management in the forests of Northeast Oregon in the academic setting

through Oregon State University and as part of the Oregon Range and Related Resources Evaluation Project team, but I have invested my own time, labor and capital in the operation and ownership of ranches, sawmills and timberlands within this region. As a result of this background I am fully aware of the raw material plight of the industry in Northeast Oregon in general and our three Grant County sawmills in particular.

I have worked for and continue to support any effort to provide ecologically sustainable, socially acceptable and economically viable management of the national forests of Eastern Oregon. Any management which is truly ecologically sustainable, socially acceptable and economically viable will "provide a continuous supply of National Forest System timber for the use and necessities of the citizens of the United States" while "facilitating the stabilization of communities and opportunities for employment" to the industries and communities of Oregon as mandated in Federal Statutes enumerated below and further expressed in Forest Service Manual 2402. The Statutes referred to above include but are not limited to:

1. The Organic Act of 1897 which states "No public forest reservation shall be established, except to improve and protect (emphasis added) the forest within the reservation or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of the citizens of the United States" . . . "The Secretary of Interior shall (emphasis added) make provisions for the protection against destruction by fire and depredations upon the public forests and forest reservations . . . For the purpose of preserving living and growing timber and promoting the younger growth on forest reservations, . . . The Secretary of the Interior . . . may cause to be designated . . . so much of the dead, matured, or large growth (emphasis added) of trees found upon such forest reservations as may be compatible with the utilization of the forests thereon, and may sell the same"

2. The Multiple-Use, Sustained-Yield Act of June 12, 1960 which states: "It is the policy of the Congress that the national forests are established and shall (emphasis added) be administered for outdoor recreation, range, timber, (emphasis added) watershed, and wildlife and fish purposes". "The Secretary of Agriculture is authorized and directed (emphasis added) to develop and administer the renewable surface resources of the National Forests for multiple use and sustained yield of the several products and services obtained therefrom," "due consideration will be given to the relative values of the various resources" . . . "sustained yield of the several products and services" means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources. The law specifically directs that the national forests be administered in part for the "high yield" of timber products. When the law was enacted in 1960, "timber" meant sawlogs for the lumber production. Biomass and other related products were not a primary consideration. The Proposed Action has no discussion of the "relative value of the various resources" as required.

3. The Forest and Renewable Resources Planning Act as amended by National Forest Management Act of 1976 states in Sec.5 ". . .the Secretary of Agriculture shall develop and maintain on a continuing basis a comprehensive and appropriately detailed inventory". Sec. 6 (f)(1) goes on to state ". . .forest plans shall form one integrated plan for each unit (defined as a National Forest) of the National Forest System,". Sec. 6 (m) (1) further states ". . .the standards shall (emphasis added) not preclude the Secretary from salvage or sanitation harvesting of timber stands which are substantially damaged by fire, windthrow or other catastrophe or which are in imminent danger from insect or disease attack,".

4. The National Environmental Policy Act of 1969 states ". . .it is the policy of the Federal Government. . .to use all practicable means and measures. to create and maintain conditions under which man and nature can exist in productivity harmony, and fulfill the social, economic (emphasis added) and other requirements of present, and future generations of Americans." Nothing in Sec. 102 or 103 shall in any way affect the specific statutory obligations of any Federal Agency. NEPA along with NFMA Sec. 6 (b) mandates that the Forest Service in their Proposed Action consider the economic consequences of their actions and must seek a balance between "population and resource use which will permit a high standard of living and a wide sharing of life's amenities".

I believe that the risks associated with SB 2895 "Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act of 2009", hereinafter referred to as

“Act” far outweigh any perceived benefits and will, in-fact, exacerbate the forest management problems and raw material supply issues currently existing.

GOALS

The framers of this Act came together to achieve a noble set of goals including:

1. Conserving and restoring eastside forests of the State;
2. Providing an immediate, predictable and increased timber flow to support locally based restoration economies;
3. Making the eastside forests of the State more resistant and resilient and to mitigate the effects of, climate change; to a healthy and resilient condition;
4. Protection and restoration and increase of old growth forest stands and trees in the eastside forests of the State;
5. To expedite actions to conserve and restore forests of the State that achieve ecological objectives and provide social benefits;
6. to promote collaboration in communities of the eastside forests of the State to support natural resource and restoration-based economies;
7. to streamline administrative processes for ecological restoration projects in the eastside forests of the State that result in improved forest and watershed health;
8. to conserve and restore the ecological health and natural processes of aquatic and riparian ecosystems and watersheds in the State;
9. To prioritize and strategically target restoration projects to improve forest and watershed health in old growth forests;
10. To provide periodic independent review of agency programs in carrying out this Act;
11. To recognize that the threats to forest health, watershed health and rural economies have reached emergency status; and
12. To ensure that Federal land managers in the State are good neighbors to private landowners.

These goals were bent out of decades of “increasingly dysfunctional, expensive, inconsistent, and confused. . .” management of the National Forests of Eastern Oregon. This is as described by former Chief of the United States Forest Service, Jack Ward Thomas, in a guest editorial printed in the Oregonian Newspaper, January 22, 2010, titled “What’s wrong with the eastside forest compromise”, attached hereto and its entirety included as part of this testimony.

The Act fails to achieve some of the primary goals of the Act as listed above.

Providing an immediate, predictable and increased timber flow to support locally based restoration economies

The Act fails in this aspect on several levels:

1. The primary reason for the lack of supply of timber for the industries and local resource dependent communities of Eastern Oregon is the lack of timber offered by the National Forests;
 - a. The National Forests have over the past decade, been forced through litigation to increase the level and expense of planning associated with each project;
 - i. Increased expense associated with reduced budgets have resulted in a decrease in the number of projects planned and implemented, which would result in timber for the industries;
 - b. The Projects planned on the National Forests have increased in complexity and each project has produced less and less raw material therefore have become less and less economically efficient;
 - c. The Act does not include any direct, long term; sustainable funding to ensure that sufficient number of projects can be planned and implemented to provide a predictable and sustainable supply of raw material.
 - d. Senator Wyden promises to make every effort to achieve funding but he has been in the majority and chairman of this committee for several years and funding is still inadequate, why should things change now?
2. Litigation has been a major stumbling block to the USFS in planning and implementing an adequate number of projects on the National Forests of Eastern Oregon which would result in a predictable and sustainable supply of raw material to the industry and communities of Eastern Oregon.
 - a. This Act will only increase the incidence of litigation as described below.

3. The Eastside Screen which include a 21 inch limit on trees cut along with the requirements included in PACFISH and INFISH, both of which were initiated without a NEPA process and without scientific basis, have been another stumbling block to good forest management and the ability of the USFS to provide an immediate, predictable and sustainable supply of timber to the industry and communities of Eastern Oregon;

a. The USFS has over the last decade developed an effective framework within which to comply with these management directions (which have internal flexibility) in their planning and implementation of National Forest management projects.

b. This Act, by congressionally codifying and even expanding the 21 inch management direction, PACFISH and INFISH regulations, will result in a further decline in raw material supply.

c. This Act not only completely prohibits the harvest of any tree over 21 inches DBH, which has no basis in science, but also allows for the prohibition of the harvest of trees under 21 inches based upon unknown set of standards or guidelines or whim of an Advisory Panel.

d. The restrictions stated in this Act will directly result in less raw material supply to the industry and communities of Eastern Oregon.

4. The additional layers of process required by this Act will increase the expense of each project and will expand the time required for each project.

5. Finally, this goal is an overt attempt by Congress to tell the communities of Eastern Oregon the type of an economy which the lands managed by the USFS will support, "restoration economies";

a. Initially there is no definition of a "restoration economy"

b. The Organic Act of 1897 states that the national forests are "to furnish a continuous supply of timber for the use and necessities of the citizens of the United States" it does not limit to "restoration economies"

c. To limit "timber flow to support locally based "restoration economies"" is problematic at a minimum. What does this really mean?

Making the eastside forests of the State more resistant and resilient and to mitigate the effects of, climate change

The Act fails goal as well for the following reasons:

1. The codification of the 21 inch rule which prohibits the harvest or removal of any tree over 21 inches does not add to the restoration of the health of the national forests of Eastern Oregon.

a. The codification of this rule simply appeases the radical environmental factions and is not supported by science.

b. 21 inch trees are not necessarily Old Growth,

c. All trees die and under current conditions where the forests are in a highly overstocked condition, these trees may even die sooner due to the stress.

d. Forest management is dynamic and many ecotypes within the forests are far healthier with a mixed age stand of trees. With a congressionally mandated prohibition of the harvest and removal of any tree over 21 inches, these areas will be difficult to bring back to a healthy state.

e. The expansion of the 21 inch rule to allow for the prohibition of trees under 21 inches even makes forest management more difficult.

f. Congressional codification and expansion of this rule removes some of the tools available to the professionals who are charged with and hired to manage the forests in an ecologically sustainable manner.

2. The codification and expansion of the PACFISH and INFISH regulations add nothing to the goal of restoring the forests of Eastern Oregon to a healthy and resilient condition.

a. The rules as currently in existence provide the necessary protection intended while allowing the USFS the ability to modify prescriptions on a site by site basis.

b. The codification of these rules takes away the ability of the professional forest managers to manage the forests ecosystems to the needs of each specific site. Rather they will be held to a cookie cutter approach.

c. This Act not only codified the PACFISH and INFISH regulations but expands them in Section (5) (a)(4)(b)(v) "for watersheds NOT IDENTIFIED (emphasis added) as key and priority watersheds, as identified under

PACFISH and INFISH” to mandate certain management prescriptions for these areas as well.

3. The Act provides no new tools to the USFS in the pursuit of a more healthy and resilient forest. In-fact the additional layers of process and the stricter regulatory nature of the 21 inch rule, the less than 21 inch rule, the “watershed management” regulations in Section (5), and the inclusion of a new definition of “Old Growth” in Section (2) (14) which includes a single “tree” actually take away tools the USFS was able to utilize in the pursuit of a healthy and resilient forest.

a. Implicit in any action which reduces the tools available, restricts the options available and increases the layers of process is a reduction in effectiveness.

4. There has been extensive research, data and reporting by the Oregon State Climatologist (“Climate Change-Global and in Oregon” by State Climatologist George H. Taylor). Included in the findings was the fact that data in Eastern Oregon demonstrates a consistent temperature regime with cooling and warming cycles throughout history and continuing today.

a. Without arguing the global warming issue, one of the goals of forest management is to be aware of the implications forest management decisions have upon the release and/or sequestration of carbon.

b. This Act through the insistence upon retention of old mature and dying trees will implicitly increase the carbon release into the atmosphere and reduce the level of sequestration of carbon as follows;

i) The notion that you can store more carbon in larger diameter trees” is flawed and inconsistent with science. In-fact the best way to sequester carbon through the utilization of “large diameter trees” is to harvest them and utilize the wood in construction so as to make a “carbon bank” in each board. Science demonstrates that as the Consumers of carbon, ie trees, grow they “consume” carbon which can be sequestered in the “carbon bank” through harvest at the appropriate time (before decomposition begins). If the tree is allowed to die and begin decomposing, even while standing, it begins the process of producing carbon again and releasing it into the atmosphere. Additional return of carbon to the atmosphere occurs through the nonbiological process of combustion, both through the purposive use of wood in a fireplace and the accidental fire in a forest or building. (Concepts of Ecology, by Edward J. Kormondy).

c. Therefore, this Act will actually be counter productive in the desire to sequester more carbon in the National Forests.

To expedite actions to conserve and restore forests of the State that achieve ecological objectives and provide social benefits

This goal is accompanied by the goal which states:

To expedite actions to conserve and restore forests of the State. . .

These goals are similar to the goal which states:

To streamline administrative processes for ecological restoration projects in the eastside forests of the State that result in improved forest and watershed health

The Act completely fails to expedite any actions, or to streamline any administrative process.

The management of these National Forests has been frustrated by a continual series of litigation on the part of extreme environmental groups to confound, disrupt and ultimately stop all management of the National Forests of this region. As a result of this stream of appeals and litigation, the ecological health of the forests has drastically declined resulting in millions of acres of overstocked, decadent, insect and disease ridden dead and dying, fire prone forests.

Along with the declining ecological state of these National Forests, the flow of raw materials produced by these forest ecosystems has ground to a near halt, which in turn has resulted in the mass exodus of industrial infrastructure in the surrounding communities. With this dramatic decline in industrial base, the communities of Eastern Oregon are in a free fall far more severe than the nations economy is experiencing. The 10 percent unemployment experienced on a nationwide basis at this time would be looked at in many areas of Eastern Oregon as good news when these communities have been experiencing nearly 20% unemployment on a regular basis

during this decimation of our local economies, our surrounding environment and our way of life.

There is however, a disconnect between the problems enumerated above, the desire of the framers of this Act to meet the goals also described in the Act, and the reality of what will actually happen if the Act, “The Oregon Eastside Restoration Old Growth Protection and Jobs Act of 2009” , becomes the law of the land through passage of SB 2895 concurrence by the House of Representatives of an identical bill to become a congressional act which will then be signed by the President of the United States.

Natural resource management is dynamic, temporal, and requires modifications and adaptation from site to site. Actions by the Congress of the United States, signed as a PUBLIC LAW by the President of the United States are absolute, timeless and aside from passage of another Congressional action to be signed into law by the President of the United States, is iron clad. Washington DC and Congress are not the place to determine resource management.

It is highly unlikely that the Act will be successful in the attempts to address the prolonged process of getting forest management projects implemented in a timely fashion. The Act addresses the wrong problem. It is not management science that is the problem. The problem in getting projects initiated on the ground is protracted processes required to achieve a judicially viable project. While appeals delay Forest Service programs, they do not entirely stop the programs. It is the continued threat of litigation by the “Environmental Litigation Industry” that stops the process and this Act does not resolve that problem.

The new processes spelled out will do little to get more projects on the ground.

1) The Advisory Panel as proposed in the Act is destined for disaster;

a. Legislated advisory panels (like the Committee of Scientists in RPA) have been shown to be ineffective and a waste of taxpayer money;

b. The Advisory Panel specified in the Act will add a cumbersome layer of process to a variety of decisions;

c. How can one, seven (7) person panel be expected to provide the mandated input to the issues on each of the six (6) National Forests and the associated Collaborative Groups;

d. The combination of mandates including the Advisory Panel, the Collaborative Groups and coordination with the “Secretary” will absolutely guarantee paralysis; and e. The addition of the Advisory Panel and the Collaborative Groups will add two (2) additional layers which are being legalized, codified and mandated by Congress which will direct US Forest Service management programs, essentially bypassing the Secretary of Agriculture.

2) The myriad of reports mandated within this Act will by definition increase process and will add layers of administrative work to an already overly complicated process;

3) The Advisory Panel and Collaborative Groups leave out the mandated coordination required by current law to include county government, grazing permittees, neighboring landowners and other valid interest holders; and

4) The new processes, procedures and restrictions spelled out in the act are by definition “more process”.

The Act fails to limit process, and actually dramatically adds to the process required to get a project on the ground. A related issue of process will occur on the Umatilla and Wallowa-Whitman National Forests where the USFS will be required to manage the lands in Oregon (under this Act) under the set of rules set forth in this Act, while managing their lands located in the States of Washington and Idaho, which are part of the Umatilla and Wallowa-Whitman forests under a different set of rules.

To promote collaboration in communities of the eastside forests of the State to support natural resource and restoration-based economies

The Act again fails this goal for the following reasons:

1. Collaborative groups are already authorized and working within the Eastside National Forests to congressionally mandate and muddle the process of establishment, management of and purpose is counter-productive

2. This Act states that “the Secretary shall ensure that the collaborative group be comprised of diverse backgrounds and represent various interests that include at a minimum—environmental organizations, timber and forest products industry representatives and county government”. To explicitly identify cer-

tain members while excluding other groups and an individual is problematic, divisive and will be the subject of litigation rather than collaboration.

3. The Act further defines how the group will operate which, as with the mandate of the composition of the group will result in the group being less collaborative and more divisive and liturgical.

4. The Act also establishes a complaint procedure which implicitly encourages divisiveness and litigation even in the makeup, operation and decisions of the collaborative group, which is contrary to the goal.

FOREST MANAGEMENT

Within the framework of the Act, economic and social considerations are always placed secondary to anything else, in stark contrast to the objectives of forest management spelled out in the Forest Service Manual (FSM 2402) which includes six (6) goals and the first is "To provide a continuous supply of National Forest System timber for the use and necessities of the citizens of the United States." This secondary status of economic and social considerations is evidenced most notably in Section (4) "Forest Management" (a) "Management Goals"(1) of the Act wherein the Act enumerates four (4) specific goals as follows:

- A. "to conserve and restore the health, natural structure, processes and functions of the forests and watersheds located in the covered area;"
- B. "to reduce the risk of uncharacteristic disturbances from fire, insects and disease;"
- C. "to allow for characteristic natural disturbances;" and
- D. "To increase resistance and resiliency of the covered land to uncharacteristic events."

Although noble in an of themselves, the explicit and direct exclusion of any reference to any social or economic consideration puts this Act in direct conflict with The Organic Act of 1897, The Multiple-Use, Sustained-Yield Act of June 12, 1960, The Forest and Renewable Resources Planning Act as amended by National Forest Management Act of 1976, and The National Environmental Policy Act of 1969.

As part of the direction from Congress in this Act as to how to "implement" "Forest Management" Section (4)(a)(2)(B) includes fifteen items which the projects "could potentially help achieve". This section states that "the Secretary (USFS) shall CONSIDER (emphasis added) methodologies that COULD POTENTIALLY (emphasis added) help achieve" a list of these fifteen items and only one, number nine (9) has economic or social considerations. This one, number nine (9) lists "wood harvests to sustain adequate levels of industry infrastructure." Even the listing of this one item as a part of fifteen items which could potentially be helped, is confusing, inadequate, and opens the door for litigation in and of itself for the following reasons:

- "Industry infrastructure" is a non-defined element.
 - What does it really mean?
 - And who will make the determination as to what infrastructure is?
- What is an "adequate level"?
 - To whom is the adequacy relevant?
 - Who is to determine if the level of "wood harvest" "adequate"?
- What is an "adequate level of industry infrastructure"?
 - The obvious answer to these questions is that it will fall upon the courts to make these determinations. MORE LITIGATION

When The Congress of the United States of America makes a law which is in turn signed by the President, it becomes a "Public Law" which MUST be followed and when confusion as to intent is encountered, the courts are called upon to interpret. The following are just a short list of issues that the courts (which many of us have little confidence in) will be called upon to decipher:

- "anticipated future conditions"
- "sufficiently uniform"
- "acceptable range" of;
 - Species composition
 - Ecosystem function
 - Carbon cycling
 - Hydrologic function
- "potential natural vegetation"

- “best available science”
- “within forest stand spatial heterogeneity”
- “older trees”
- “older mature trees”
- “ecologically appropriate spatial complexity”
- “appropriate understory plant community composition and condition”
- “professional society”
- “maximum extent practicable”
- “local economic value potential”
- “restoration economies”
- “as soon as practicable”
- “minimum quantity of timber based upon the need to maintain a sustainable industrial capacity to perform the ecological restoration activities under this Act.”
- “sawtimber as a byproduct”
- “encourage the establishment and maintenance of new and existing collaborative groups”
- “multiple interested individuals, who in the aggregate, are comprised of diverse backgrounds and represent various interests”
- “operates in a transparent and non-exclusive manner”
- “operates by consensus or in according to voting procedures to ensure a high degree of agreement among participants and across various interests”
- “high degree of agreement”
- “level of participation sufficient to ensure that members of the collaborative group are adequately informed before each vote”
- “sufficient level of participation”
- “adequately informed”

We each have a vision that comes to mind when these words and statements are written or spoken. Each of these words or statements may be clear to one person but are confusing and nebulous to others. These words and statements are by all means not a complete of the words statements or issues which will increase the incidence of litigation associated with National Forest management in Eastern Oregon.

The Act's attempts to help “local” economies by specifying that the required Stewardship contract “give preference to local businesses” to help local business and workers is a misleading proposition. The Act defines “local” to be a 100 mile radius around any National Forest, Section (13)(d)(3). The Malheur National Forest can reach from the Cascades to the Idaho border and North to the Washington border this will kill small resource dependant communities within Grant County, Harney County, Wallowa County, Wheeler County and other small remote communities within the Eastern Oregon national forests. It is statements such as these that sound good but really hurt when implemented.

The Act, while attempting to limit appeals and litigation, actually will provide additional fuel to the litigation process through:

1) Ambiguous definitions some listed above but also including:

- a. “Old Growth” which includes a single tree, Section (3)(14), then prohibits harvest or removal, Section (4)(b)(1), then discusses limiting harvest of trees over 150 years old in Section (9)(d);
- b. “Forest Health” which includes “to maintain or develop species composition, ecosystem function and structure, hydrologic function, carbon cycling, and sediment regimes that are within an acceptable range that considers—(i) historic variability; and (ii) anticipated future conditions, Section (3)(6);
- c. “restoration economies”, Section (2)(2); and
- d. “Plant Association”, Section (3)(17), which includes as part of the definition “vegetation community that—(i) would potentially, in the absence of disturbance occupy a site. . .”; and

2) Nebulous, unclear and even litigious wording and management direction, such as:

- a. “restore ecologically sustainable forest stands to incorporate characteristic forest stand structures and older tree populations”, Section (4)(a)(2)(B)(viii) ;
- b. “natural structure” which is undefined and not agreed upon by scientists;
- c. “best available science” which is absolutely subjective and a recipe for litigation;

- d. “restore historical levels of within forest stand spatial heterogeneity” Section (4)(a)(2)(B)(iv);
- e. “the restoration and maintenance of historic population levels of older tree”, Section (4)(a)(2)(B)(vii);
- f. “ecologically appropriate spatial complexity”, Section (4)(a)(2)(B)(xi); and
- g. “In developing ecological restoration projects under this Act, the Secretary shall—(A) . . . , and achieve, a net reduction in the permanent road system;”, Section (6)(c)(1), which will ultimately result in zero miles of permanent roads on the forest if carried out as written.

ROADS

The Act begins a discussion of “Roads” in Section (6) with a complete prohibition on the construction of a permanent road on the National Forests of Eastern Oregon. This is an irrational act on the part of our Congress.

The Act goes on to allow for the placement of a permanent road as long as it meets several criteria and is not built on any area that contains a tree protected under Section (4)(b) which is any tree over 21 inches DBH or under 21 inches DBH. In most cases there is not a need for a road where there is not a tree. I was encouraged that “economic criteria” were mentioned as considerations along with ecological when constructing a temporary road.

One major concern I have with the Act’s “Net Road Reduction” in Section (6)(c)(1) states that “the Secretary shall . . . achieve a net reduction in the permanent road system;” in the “development of ecological restoration projects under this Act.” If every project is required to have a NET REDUCTION in the permanent road system, then simple mathematics means that ultimately there will be NO permanent road system.

EASTSIDE FOREST SCIENTIFIC AND TECHNICAL ADVISORY PANEL

The establishment of the “Eastside Forest Scientific and Technical Advisory Panel” hereinafter referred to as the “Advisory Panel” in Section (7) of the Act is a nightmare in itself.

- The Act only gives 90 days to establish this panel (politically impossible)
 - It took 1½ years for congress to re-appoint members to the RAC’s that were already in existence
 - Before the Secretary can appoint this Advisory Panel, the Secretary must Consult with Congress
 - Before these experts can be considered to consult with congress for the Secretary to appoint to the Advisory Panel, they must be recommended by “an institution of higher education or a professional society”.
 - Someone must determine which institution of higher education is the appropriate ones to recommend and which professional society is the appropriate one or ones to may a recommendation;
 - Someone must ensure that “through the collaboration of the individuals appointed” (this sounds like a “do loop” or a “vicious cycle” where one must collaborate with ones self to determine if one meets the criteria) will represent a “broad array of fields”. This broad array of fields consists of 14 specifically listed fields.
 - This process is impossible to complete in 90 days which starts the timelines off on a delay that flows downhill.
- The Act then gives 180 days for the Advisory Panel, once appointed, to tell the USFS and the people how they are going to achieve the goals in Section (4)(a)(1) which are the four (4) goals none of which contain any economic or social consideration.
 - The Act is asking the Advisory Panel, in 180 days, to develop a plan containing the “recommendations as to how this Advisory Panel” is going to manage, the “forest, stream, grassland, wetland, alpine and other land and water located in the covered area”, (all six National Forests in Eastern Oregon) considering the “best available science”.
 - This report must include “management guidance” regarding a list of seven (7) areas which are fairly specific.
 - All this completed and a report to the USFS and the people covering the six (6) National Forests within 180 days,
 - This timeline is unrealistic at best.

- An additional report is due to the “appropriate committees of Congress” in five (5) years that is extremely explicit in its content.
 - Similar to a forest plan
 - More process

SUMMARY

The Act will guarantee some fundamental change in the direction of forest management on the National Forests of Eastern Oregon. Among these guaranteed changes are:

- 1) Congressional codification of the flawed Eastside Screens;
- 2) Congressional Codification and Expansion of PACFISH and INFISH;
- 3) Congress developing a definition of Old Growth which is functionally unattainable and inconsistent with definitions accepted within the scientific and professional communities;
- 4) Fundamentally flawed mandated reduction in the National Forest Road system which mathematically will result in NO permanent roads;
- 5) A mandated collaborative process which will result in major stagnation of the entire process; and
- 6) Congressional mandate of some “historic population level of older trees” (which are undefined).
- 7) Promises, Promises, Promises, and more Promises of some future funding level for USFS, Forest Management adequate to finance this menagerie of codified restrictions and regulations, if future congresses agree.

The Act authorizes a one time sum of \$50,000,000 to be appropriated that will be available until it is used up. Only 3% of this money can be used for administrative purposes, requiring the balance of the administrative costs including the costs of the Advisory Panel, Collaborative groups and extra assessments and reports to be taken from the already anemic Timber Management budget in these six (6) national forests.

It is highly unlikely that: 1) There will be additional appropriations for the increased overhead associated with this Act; or 2) The other National Forests within either Region 6 or the other Regions of the nation will voluntarily relinquish funds from their allocated budgets to make up the increased overhead associated with this Act. Therefore, each of the forests will be required to make up the difference in overhead from other projects.

It is also unlikely that the revenues from the sale of forest products generated as a result of the restoration projects can sustain the program, of Ecological Restoration Projects on the Large Landscape basis. The restrictions placed on harvest of “Older Trees” and the reliance on harvest of “Biomass” is highly unlikely to provide a sustainable flow of income large enough to fund the intent of this Act. Biomass and small diameter trees have the lowest product value and the highest cost to produce. Biomass barely pays its way to the mill in the best markets and therefore, there will be little revenue to sustain a very expensive program. As a result, the USFS will be stuck trying to comply with a very expensive and legally mandated program with little money to comply.

The tax payers of the United States will again be burdened with an extensive and expensive program mandated by congress. When in fact the products of these six (6) national forests should and are easily capable of producing enough income, from the sale of even a minor part of the sustained yield from the forests, to not only pay for the harvest program but the associated restoration work necessary to improve the declining health of the forests. In these times of skyrocketing national deficit and astronomical national debt, congress should recognize that our vast renewable natural resources are one area available to produce the income necessary to dig our nation out of the fiscal mess we find ourselves in at this time. We need less restrictions not more expensive process at this time.

I find that enormity of the problems associated with this Act are so overwhelming that I can not support it. Any purported benefits pale to the increased process, increased costs and the areas of potential litigation created by this Act.

Passage of the Act in its present form will result in:

- Dramatically increased process necessary to plan and implement projects on National Forest lands in Eastern Oregon;
- Litigation over the current process and the additional layers of process will increase;
- Ecological Restoration on the National Forests of Eastern Oregon will continue to decline;

- The physical and economic infrastructure of the industrial base and the resource dependent communities will continue to decline; and
- The social fabric of our communities and region will be dramatically impacted in a negative manner.

As for resolving the timber supply and economic sustainability problems on the Eastside National Forests while improving the ecological health and resiliency of the National Forests, the Act fails.

In reality, the environmentalists will get everything they could hope for, while local communities and dependent industries are left with more restrictions and an empty promise of future funding.

Senator WYDEN. I'm going to put you down as having a couple questions about the bill.

[Laughter.]

Senator WYDEN. We'll have some questions, seriously, in a moment.

Mr. Woodward, welcome.

STATEMENT OF CRAIG WOODWARD, OWNER, WOODWARD COMPANIES, PRINEVILLE, OR

Mr. WOODWARD. Thank you, Senator Wyden, and members of the committee. I'm Craig Woodward, sixth generation central Oregonian. I've spent the majority of my life in the forests of eastern Oregon that I dearly love.

I've, will all due respect, Senator Wyden, have more than—have identified more than 40 problems, comments, and questions regarding your 65-page well-intended S. 2895. Five minutes won't scratch the surface of the issues regarding the bill, so I'll just summarize.

I've discussed this bill with members of industry, the scientific community, the Society of American Foresters, the local, city, county government, and the communities at large, and have found none willing to support this bill as written. They've all asked me to do the best job I can to express their feelings.

It's a sellout as far as I'm concerned, agreeing to forever give up the ability to remove trees regardless of size or age, sacrificing true forest management merely to be allowed to cut only an additional low value or negative value volume that needs to be treated anyway. Even though the Forest Service employees can't come out on either side of political positions, I've discussed the bill off the record with current and former administrators, not one of them were in support of this bill.

Giving up on the higher value trees will accelerate the end of the secondary mill work industry in eastern Oregon that have the employment capability in excess of 6,000 workers plus support jobs. These plants were located here due to the availability of local high quality ponderosa pine that will never again be available if this bill passes. I've found no one in the secondary mill work industry that was contacted regarding the consequences of this bill. Why not? Evidently this bill is called the Eastside Bill because the west side had the wisdom not to become part of it.

From a practical standpoint, the bill can't be labeled forest management or forest health, allowing only the smaller less valuable component to be treated. Disease such as mistletoe needs to be treated by dealing with stands as a whole. The snag inventory in the national forest in eastern Oregon is way more than ample. With a large segment of the larger trees affected by disease, insect

infestation, blow down, root sprung, mistletoe, fire, and natural mortality, good science mandates salvaging a portion of that volume. The value derived from—including a portion of the high risk larger trees in the management scheme would do more for the eastern Oregon economy and the USDA funding than the revenue from all the low value trees that will ever be harvested, while accomplishing—while accomplishing science-based management.

The bill requires that at least 75 acres for every mile of fish-bearing stream will be off limits to all harvest activity. Nearly 40 acres of every mile of non-fish bearing streams will be off limits to all harvest as well.

This bill contains a provision blocking timber sale appeal. If appeals can be blocked, then why not propose a bill to allow the forest managers to manage all of the—a portion of the forest that isn't already set aside from logging, regardless of size, with no appeal, and forego the red tape created by this bill?

The way I interpret the bill, is not—it is not immune to litigation, as far as the management process. I question that the advisory council, with such diverse opinions, can ever reach a consensus, as required by the bill.

The administrators of the Eastern Oregon National Forest have stated that they don't have the funding or the manpower to plan, advertise, and administer the needed sales programs currently, which represents no more than 10 percent of the annual growth. What makes you think that funding for this program will be appropriated if the bill is passed and not funded, no tree over 21 inches will ever be harvested in the future, and no increase small diameter volume will be harvested, who wins?

If the bill passes, there is little need for industry and local government officials to be on groups or committees as required by the bill because they've already lost the fight.

Your bill, Senator Wyden, has some positive features, however, agreeing to give up the possibility to manage and salvage the entire stand designated—in designated areas forever is definitely a tradeoff not worth making for good eastern Oregon national—for the good of eastern Oregon National Forests, the economy, and the region as a whole.

Thanks for allowing me to comment.

[The prepared statement of Mr. Woodward follows:]

PREPARED STATEMENT OF CRAIG WOODWARD, OWNER, WOODWARD COMPANIES,
PRINEVILLE, OR

For those of you not familiar with the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act of 2009, I've included an outline of what it entails. To read the act, go to http://wyden.senate.gov/newsroom/eastside_forest_restoration_bill.pdf. After reading the act, you will understand why those affected in Western Oregon were unwilling to have the forests in that area of the state included in Senator Wyden's bill.

After reading the act, I'm now convinced it's even worse than originally feared. Where is the money for study—Forest Service says they don't have man power, time, or budget to complete NEPA, EA, and EIS studies. The act can't be labeled "forest health" unless the health of the trees over 21 inches is addressed as well. In many areas the most at-risk forest component is the larger trees. Region wide, more than 50 percent of the larger trees have issues including, but not limited to, insect infestation, mistletoe, rot, lightning strikes, root sprung, blow down and natural mortality.

This bill can't be labeled a forest health bill by throwing in the towel to the radical environmental factions regarding harvest of larger trees. Instead, it should be labeled "Continued Mismanagement".

The most important bill that could be passed regarding timber issues in the area covered by the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act would be very simple to write and understand. It would include no deal-making.

COMMON SENSE FOREST BILL

- Allow no administrative appeals on timber sales by special interest groups or individuals
- Allow the forest managers to do their jobs of managing the forests—not just the small trees

The trees in our forests are a renewable resource. You can't properly manage a renewable resource by uninformed vote, legislation, or litigation. The only successful way to assure sustained yield forestry is to allow the forest managers to manage through sound silvicultural science.

Major problems that the architects of this bill seem to have overlooked are:

1. If financing isn't available to implement the plan, everyone loses except the radical environmentalists.
2. Even though Andy Kerr agrees that the special interest group he's involved with won't file appeals on increased harvest, what would prevent other groups from surfacing and filing appeals? If the power exists to prevent appeals, why aren't those powers being implemented for sound forest management practices currently?
3. If management required by the bill is implemented, the overstocked stands will be thinned. Thinning stimulates growth. When re-entry is required in the future many trees that were released and allowed to grow will be larger than the allowable removal size. What will we do then? We'll be backing ourselves into a corner in which we won't be able to get out.

By arbitrarily placing a 21-inch diameter limit on harvest, not only has the ability of the forest managers to manage been compromised, but also—equally as important—the possibility for the Forest Service to cover operating costs or even profit from timber sale revenue has been lost.

On the private side, managing the forest as a whole instead of just immature, low-value trees creates more jobs, causes more commerce, and allows the remaining sawmills to be more competitive on the world scene. The secondary manufacture millwork plants in Central and Eastern Oregon were located here over the past 50 years, due to the supply of high-quality Ponderosa pine lumber with very little transportation cost. These plants have the capacity to employ more than 2,000 workers. Since the harvest appeal restriction of larger trees by special interest environmental groups, most of the lumber supply comes from outside the area or even from outside the country. This reduces the competitive advantage afforded the local millwork plants and is partially the cause of their work force reductions.

Over the past month, I've visited with more than 50 Forest Service timber staff personnel, loggers, and industry representatives; not one of them has been in favor of the Oregon Eastside Forests Restoration, Old Growth Protection and Jobs Act.

During my discussions with Forest Service staff, I learned that even though they might have very strong opinions concerning pending legislation, they are not allowed to come out in favor of or against it. How can legislators be properly informed if those hired to protect the nation's assets can't have an opinion on legislation regarding the management of those assets?

Given the Forest Service's budget to administer the timber and the monetary losses caused by this bill, there is more than \$1 million dollars of red ink in this program in the Ochoco National Forest this year alone. If we were allowed to return to pre-appeal sustained-yield harvest, the Ochoco National Forest, which is only 1 of many national forests in Eastern Oregon, would generate additional revenue of at least \$10 million to \$20 million to the government through timber sale receipts, not to mention hundreds of additional jobs.

If the Ochoco National Forest could merely add the larger diameter volume that becomes diseased, insect-damaged, lightning-struck, root-sprung, and wind-thrown annually, to the timber sales program before they begin to deteriorate, a great injustice would begin to heal while creating \$5 million to \$10 million in stumpage revenue for the U.S. Government and creating or saving hundreds of jobs. When you expand the numbers to cover all of the forests affected by this bill, the impact is

monumental. Keep in mind that 25% of US Forest receipts stay in the local communities to finance schools and county road budgets.

An unintended consequence of this legislation is that it would have a devastating impact on the future of our nation's renewable natural resources—along with its negative impact on industry and our ability to manage our nation's national forests in Eastern Oregon. Currently the Forest Service timber sale program includes less than 10% of the annual growth on USFS managed lands.

I don't doubt Senator Wyden's intent to make the best of a bad situation. I merely feel he doesn't have an understanding of the bigger picture in this important issue. At best, all this bill accomplishes is to allow a couple of sawmills enough low-value timber to stay in operation for a little longer, while disregarding the future of our national forests.

ATTACHMENT

My company manages timberland with more than 50 miles of common boundary with National Forest lands. Any management, or mismanagement, practice on National Forestland adjacent to our property directly impacts our property. I would like to invite you and anyone you wish to join you to tour our property, and the Forest Service property in the area to see the devastation resulting from not managing the trees over 21".

The misinformation being spread around by officials about "an existing 21" rule" has done much to misinform those with a voice. For this bill to have the desired, successful result, the 21" issue must be addressed, and the forest managers must be allowed to manage without the burden of additional red tape.

I've been inundated with phone calls with individuals from industry, county governments, professional associations, the public at large, including Forest Service employees, off the record. The message has been "keep up the fight".

I'd like to use this opportunity to point out some of the questions, comments I've found with the bill.

Page 1 in the title—you more effectively restore landscapes, and protect old growth forests, by having the ability to remove a portion of 21"+ trees as needed to accomplish forest health objectives.

Page 2 line 3 & 4—managing the forest as a whole would do much more to accomplish this objective.

Page 2 line 6 & 7—removing some of the diseased and damaged trees regardless of size would do much more to accomplish this.

Page 2 lines 8, 9 & 10—cutting over ripe trees would create positive carbon sequestration results.

Page 2 lines 11, 12 & 13—half of the old growth in the portion of the state covered by this bill is already protected by roadless, management areas, landscape architecture and wilderness, etc. How has that been working for us? I say "protect the healthy larger trees while maintaining the needed snag inventory. Allow the rest of the volume to be managed as part of the sustainable inventory as needed."

Page 2 lines 14-17—economic benefit would be vastly improved by including larger trees.

Page 2 lines 18-20—done properly, removing some larger trees would have positive impact on resource based and restoration based economics.

Page 3 lines 1-4—this bill does just the opposite of streamlining the administrative process.

Page 3 lines 5-7—can't be accomplished by treating only small trees.

Page 3 line 11—please describe uncharacteristic conditions.

Page 3 line 14 & 15—who reviews?

Page 3 line 19 & 20—it is impossible to make the Forest Service good neighbors under existing rules. For example: we own in excess of 50 miles of common boundary. Good neighbors traditionally split boundary fence repairs. The law requires us to maintain all boundary fences, if Forest Service animals get onto our property it is our problem. If our cattle get onto Forest Service, it's trespass. If a neighbor needs to haul logs across my property, I allow it free of charge. If I must haul across Forest Service, there is a healthy road use fee.

Page 13 lines 7-9—how do you reduce risk of mistletoe without cutting infected large trees?

Page 13 lines 21-24—advice of advisory councils is only as good as the advisors on the council. Let the managers manage the forests.

Page 14 & 15—the projects outlined on this page don't have enough details to know what's expected.

Page 16 lines 19-23—advisory panels and collaborative groups will vary depending upon their composition. Consensus is doubtful.

Page 18 line 24—what is the definition of “the top of the inner gorge”?

Page 19 lines 5-10—this excludes in excess of 75 acres per mile of stream.

Page 19 lines 23-25—this excludes nearly 40 acres for every mile of non-fish bearing stream.

Page 20 line 11—why have the other restrictions on the rest of this page when this covers them all?

Page 27—all existing roads in an area become essential when wildfire strikes.

Page 33 line 23—this does little or nothing to maintain the secondary millwork industry that employs 10 times as many people as the sawmills.

Page 36 line 7 & 8—Good luck.

Page 36 line 11—evaluating these needs does nothing to cure the problem.

Page 39 lines 6-8—all this does is to deny the opportunity to utilize the remaining resource available in the portion of the forest that is not already off limits due to previously set aside as wilderness, riparian protection, parks, roadless, and other natural and management areas.

Page 40 line 24—will these ecological restoration areas be available for continued re-entry once the initial project is completed?

Page 43 line 2—if the ability exists to eliminate appeals, we should eliminate them, let the forest managers do their job. Replace them if they don’t properly satisfy the task that would lessen the red tape added with this bill.

Page 45 lines 12-14—why have we given up on protecting roadless areas?

Page 45 lines 17-22—this goes against protecting forest health as a whole in an area.

Page 46 lines 4-8—how does eliminating a tree from management due to size or age equate to forest management?

Page 46 lines 19-24—if this bill passes, it’s too late to accommodate the largest segment of private industry, the secondary millwork manufacturers.

Page 48 lines 22-24—Indian tribes are not represented.

Page 49 lines 7-11—I doubt if agreement will ever be reached among such diverse groups.

Page 49 lines 18-24—this will be an administrative nightmare.

Page 58 lines 1-4—why not use this process currently?

Page 58 line 22—this eliminates the gain of having no appeal.

Page 60 lines 7-16—we’re sold out by sacrificing the salvage of large timber for the substitution of a guaranteed volume of slash.

Page 61 line 16—what process is used to assure local business gets the work?

Page 63 lines 16-18—without size limit it could fund itself.

Page 63 line 19—I seriously doubt if \$1,500,000 will fund this projects administration.

In conclusion, even with the positive features of this bill, it’s no wonder why at least 3 county governments, mills representing several thousand workers, member of associations such as the Society of American Foresters, the Grant County Public Forest Commission, as well as the public at large join me against the passage of this bill.

Senator WYDEN. Thank you, Mr. Woodward, and I’ll have some questions in a moment.

Mr. Maluski, welcome.

STATEMENT OF IVAN MALUSKI, CONSERVATION PROGRAM COORDINATOR, OREGON CHAPTER SIERRA CLUB

Mr. MALUSKI. Senator Wyden, on behalf of the Sierra Club’s more than—or nearly 20,000 members in Oregon and our tens of thousands of supporters here, I’d like to thank you for the opportunity to testify on this bill today.

Our staff and volunteers spend a lot of time working on these issue in central and eastern Oregon. We do, I want to be clear, that we do support some of the key goals of this legislation, and we support provisions such as the protection of—codification of protections for large diameter trees, enhanced protections for riparian areas, and the ban on permanent new roads.

But we do believe that some of the provisions of this bill will unfortunately run counter to some of the stated restoration goals of

this legislation and could possibly lead to more litigation in some cases. We submitted more detailed written testimony and in the interest of time I will just sort of highlight some of our key points.

One of our key points relates to administrative appeals. During the first 3 years of the bill's implementation, it removes the rights for the public to administratively appeal logging projects. We are of the belief that the administrative appeals process is a fundamental reflection of the strength of the democratic process, facilitating dialog rather than litigation. In that spirit, we provided as an attachment to our testimony a list of 19 Forest Service projects we worked on in 2006 through 2010 across central and eastern Oregon that actually saw on the ground environmental improvements and no litigation due to successful administrative appeal negotiations.

The types of improvements we saw were protection of sensitive soils, water quality, important old growth stands, and roadless areas. Without our administrative appeal rights in place, we're concerned this legislation could unfairly restrict our ability to stop irresponsible logging on our public lands that could hurt wildlife, water quality, and forest health, and we would recommend that we retain administrative appeals during the interim period.

Another key area of our concern is the mandated acreage targets in the legislation, both during the interim and during the general part of the bill. Unfortunately, because this is, at this point, only funded for 1 year, part of our concern here is that essentially this could become an unfunded mandate, where if Congress does not step up, and inevitably I don't think the projects will pay for themselves, the Forest Service will be obligated to meet these acreage targets regardless.

As it pertains to the post-interim period, we're looking at—as each national forest is going to be required to produce one 25,000-acre project per year, I think that regardless of the actual restoration needs on the ground, so that really ties the hands of local forest managers to deal with these types of issues.

Furthermore, stating that the—at least during the interim, the predominant focus of these projects is mechanical in nature and for saw log production, and during the post-interim to maintain mill infrastructure, gives us a concern that that will sort of bias the outcome of a lot of these restoration projects.

We would recommend that the actual annual per acreage forest targets be removed and we allow the best available science to set those targets on the ground.

Another key area is just the use of science in this bill. We do support the bill's focus on the best available science, but one of the things we would highlight is that there is quite a body of work out there, the Seminal Eastside Scientific Society Panels report to the President and Congress in 1994. Your bill has incorporated some of the key protections, but we would like to see it more explicitly articulated in the legislation, that we're going to build upon that existing body of science. Essentially that includes protection for old growth stands, as well as old growth trees, protection for smaller roadless areas, and indeed prohibiting logging in post-fire situations.

I would take a little bit of issue to a comment from Dr. Franklin, we have—there is actually a great deal of controversy over the mechanical treatments in mixed conifer stands, both dry and moist. We have provided a list of—a letter from 11 scientists, notably including Dr. James Carr from the University of Washington, Dr. Robert Hudo from the University of Montana, which articulate some of these concerns and I think give you a lot more background on why we need to be cautious about mandating too much mechanical activity in some of these mixed conifer stands.

Another area, just 2 more, really is—one of them is biomass contracting. This is an issue for the Sierra Club, partly because we have concerns that incentivizing Federal lands biomass to the point that it creates a new unsustainable demand for raw material from national forests could essentially create demands that we can not meet. In the context of this legislation, we're concerned about the 20-year contracting with private—outside private entities for biomass removal on Federal lands, wheelers have to be scaled back in this legislation.

Last, I want to make a key point, and this is the subject of an op-ed that we published in the Bend Bulletin yesterday, which we can make available to you if you haven't seen it. It's really about the need to—for economic diversification as part of this bill. It's very clear that this bill's economic focus and jobs focus is about getting saw logs to the mill and maintaining mill infrastructure. We think that the focus needs to be much more broad than that.

The University of Oregon's Ecosystem Workforce Program has done a tremendous amount of work documenting the various types of restoration jobs that are out there. It's our experience with the Forest Service that if we do not give them clear direction on these non-timber oriented restoration exercises such as road removal, fish passage improvement, noxious weed removal, they're just not going to get to them, they're going to focus on the logging.

According to recent research by the University of Oregon's Ecosystem Workforce Program, for every \$1 million of public investment in forest restoration, we can create between 14.7 and 23.8 total jobs. This obviously—some of this work is going to be involving chainsaws and heavy equipment, but a lot of simply is not, so we need to make sure that we're really diversifying the restoration economy. The key point here is that when we're in a situation like we have in the last few years where timber prices are at record lows, we need to make sure that we're not putting all our eggs in that basket, and we are diversifying rural economies through this process.

So, that's really the conclusion of my remarks. Again, there's pieces of this legislation we support. We think that some of these key points we've articulated would be wonderful to see addressed before we move forward.

Thank you.

[The prepared statement of Mr. Maluski follows:]

PREPARED STATEMENT OF IVAN MALUSKI, CONSERVATION PROGRAM COORDINATOR,
OREGON CHAPTER SIERRA CLUB

Chairman Wyden and Members of the Subcommittee:

On behalf of the Oregon Chapter of the Sierra Club and the more than 1.3 million members and supporters of the Sierra Club nationwide, we thank you for the oppor-

tunity to testify today on S. 2895, the Oregon Eastside Forest Restoration, Old Growth Protection, & Jobs Act.

For more than a century, the Sierra Club has worked to protect America's wilderness, forests, and public lands so that generations of Americans can explore and enjoy this nation's natural bounty. Today, there are 65 Sierra Club Chapters and more than 425 Sierra Club Groups across the country.

With nearly 20,000 members living in Oregon, the Sierra Club has a strong interest in the management of the National Forests of Central and Eastern Oregon. Our staff and membership in Oregon have consistently worked to ensure sound science-based management of the National Forests covered by this legislation and have focused efforts on protecting old growth forests and roadless areas. We support the creation of forest based restoration jobs that also promote the recovery of healthy populations of threatened and endangered species, address the excessive network of roads created through past management, and to preserve biodiversity and ecosystem resiliency in the face of climate change.

Over the years, we have been involved in a number of your efforts to protect Oregon's old growth forests. We are supportive of some of the key restoration goals of this legislation but believe that some sections as currently written will run counter to the bill's stated restoration emphasis. We provide the following comments in the interest of improving this proposal to address our concerns. We previously submitted testimony to the Committee on S. 2895 on March 10, and we incorporate those comments into our remarks today by reference.

The following are our basic concerns with S. 2895 as introduced:

1. Administrative Appeals.—Administrative appeals are a fundamental reflection of the strength of the democratic process, facilitating dialogue rather than litigation. The Sierra Club has found that administrative appeals allow a meaningful way to resolve concerns over Forest Service projects without having to go to directly court. We have provided as an attachment to our testimony a list of 19 Forest Service projects we have worked on in various National Forests across Central and Eastern Oregon that saw on the ground environmental improvements and no litigation due to successful administrative appeals between 2006 and 2010. These improvements include: preventing logging in mid and higher elevation mixed conifer old growth stands; protecting old growth trees smaller than 21 inches in diameter; protecting in ecologically significant roadless areas from mechanical entry; protecting key fish and wildlife habitat, including on steep slopes; and the protection of sensitive soils from the long-lasting damage of groundbased logging and both permanent and temporary roads.

During its interim period covering some 300,000 acres and three or more years, S. 2895 removes the right for the public to administratively appeal logging projects and timber sales, including those conducted after fires and in old growth stands. With the removal of the key 'check and balance' of administrative appeals, we believe this is likely to lead to more litigation, not less, with the Forest Service opting to say 'see you in court' rather than 'let's compromise' while moving forward with controversial projects. We suggest that administrative appeal rights be retained for all projects during the interim period in Section 9(c)(2).

2. Mandated annual acreages.—While the bill promotes the use of the best available science to guide management decisions, it mandates annual acreage targets during both the interim period and for each covered National Forest thereafter. Annual acreage targets will force individual forest managers to plan and implement projects based on this mandate, rather than on actual restoration needs. This approach will burden taxpayers, as the Forest Service will be obligated to plan and implement annual landscape-scale projects regardless of whether Congress continues to fund the implementation of the proposal or whether restoration projects actually bring in enough revenue to pay for the Forest Service's costs. Particularly during the interim period, these acreage mandates will be focused on mechanical entry into forests and the production of sawlogs, activities which we believe will have a tendency to undercut the restoration goals of the legislation while creating unreasonable expectations within the timber industry for steady and increased flow of logs from National Forests, even during times of weak demand such as we are experiencing now.

For these reasons, during the interim period of the legislation we suggest: the removal of specific annual acreage targets; language that requires that restoration projects be predominantly mechanical in nature; and, language that emphasizes sawlog production as a primary byproduct of restoration activities in Section 9(c)(5)(a). We also believe that language in Section 9 requiring each Na-

tional Forest covered by the bill to perform at least one 25,000 acre project per year designed to provide a minimum quantity of timber to maintain mill infrastructure should be removed from the bill (Section 9(b)(1)). This annual per-forest acreage mandate will strain limited Forest Service resources and will put pressure on the agency to design projects that are inconsistent with the restoration goals of the legislation.

3. Eastside science.—While we support this bill's requirement to protect large diameter trees, we would like the bill to more explicitly require the consideration of existing eastside science that has made large diameter tree protections the practice on the ground in eastern Oregon since 1994. The scientific recommendations in the Eastside Scientific Society Panel's Report to the President and Congress in 1994 (Henjum et al) are just as pressing and relevant today as when they were developed. While undertaking restoration projects, it is important that the Forest Service be required to protect more than large diameter trees, but also old growth stands and smaller, but ecologically significant roadless areas from ground disturbing activities and mechanical entry. We believe that as currently written, the Forest Service's implementation of this bill will lead to harmful ground disturbing activities, including 'temporary' road and skid trails, in sensitive old growth stands and other intact forests. The Forest Service has a history of inappropriately applying lessons learned from low elevation dry ponderosa pine forest types, to mid and higher elevation mixed conifer old growth stands, with counterproductive consequences.

S. 2895 creates a new Scientific and Technical Advisory Panel which is required to finish its report in less than six months. Unlike the 1994 Eastside Scientific panel, the panel created by S. 2895 will include not only scientists, but experts in timber economics and road and logging engineering. We believe the science panel created by this legislation should be explicitly directed to incorporate and build upon recommendations of the Eastside Scientific Society Panel Report of 1994, which include: protecting large trees and old growth stands from logging, protecting significant roadless areas 1000 acres or larger, and limiting mechanical entry into intact forests. We are attaching a letter from 11 scientists conducting research in the fields of forest and fire ecology issued in March 2010 in response to this legislation. This letter questions the scientific foundation of some of the assumptions about existing forest conditions in S. 2895, outlines some of the current scientific information relevant to these assumptions, and makes a series of recommendations on changes to the legislation to address these concerns. There is great scientific disagreement over what mechanical activities, if any, are ecologically appropriate in both dry and moist-mixed conifer stands. Additionally, to the extent that the panel created by this legislation will include more than just scientists, we would suggest the slot for 'timber economics' be replaced with a more appropriate 'ecosystem workforce development' position in order to ensure the broad range of restoration workforce jobs are considered in Section 7(b)(2)(a).

4. 20-year biomass contracting.—In general, we have concerns about incentivizing federal lands biomass to the point that it creates new, unsustainable demands for raw material from National Forests. In the context of this legislation, we are concerned about providing the Forest Service with the authority to enter into 20 year contracts with private entities for biomass removal on federal lands and would suggest the removal of language authorizing this new authority at Section 12(b)(4).

5. Economic Diversity and Job Creation.—Economists are increasingly realizing that our forests have value as sources of clean water, salmon habitat, recreation and carbon storage. The Sierra Club believes that any new approach to creating jobs in national forest restoration must not focus solely on the economics of supporting the logging industry, but also on enhancing non-timber values and diversifying the restoration economy as a whole. To this end, policies should be enacted to deliberately create a diverse array of businesses in eastern Oregon through systematic and long-term investments in ecological restoration activities. If the focus is primarily on generating logs for the mill, then the boom and bust cycle of timber prices and housing starts will continue to create economic uncertainty as they have for decades.

This legislation should create clear targets for improving fish passage, restoring degraded riparian areas, reducing the dense road network and removing invasive species, in order to stimulate the creation of new businesses within a diverse restoration economy. Recent research by the University of Oregon's Ecosystem Workforce Program suggests that every \$1 million in public investment in forest and watershed restoration creates between 14.7 and 23.8 total jobs.

Most of these businesses are small, typically with less than \$1 million in annual revenue. While some of these jobs involve chainsaws and may generate a useable byproduct, many labor and equipment-intensive forest and watershed restoration activities can be extremely valuable in creating economic diversification in rural communities without generating sawlogs or commercial scale biomass. Non-timber restoration activities can include: enhancing stream habitat, noxious weed removal, removing barriers to fish passage, manual thinning and brush removal, trail enhancement, controlled burning, and even research and monitoring.

The Sierra Club believes that within the wildland urban interface, the primary focus should thinning brush and small diameter trees. Outside of those interfaces, a greater focus should be placed on utilizing both prescribed and wildland-use fire policies to re-introduce natural processes where ecosystems have been significantly altered, while proactively and systematically addressing fish passage and road decommissioning needs. We support strategic and robust efforts to reduce the permanent road network and suggest legislating more specific goals and benchmarks in this bill to make this a reality. Simply requiring a 'net reduction in the permanent road system' does not provide enough incentive for the Forest Service to systematically implement road-system related restoration activities on a large enough scale to support significant numbers of these types of restoration jobs.

Further, language allowing the Forest Service to decommission new roads authorized by this legislation 'as soon as practicable after the completion date of the project' should be replaced in Section 6(B)(2)(b) with language that requires the decommissioning of all temporary roads before the completion of any restoration project. Limited Forest Service funding, and the focus on designing new landscape-scale projects year after year will inevitably divert resources away from important road restoration work, leading to less likelihood that temporary road decommissioning will be completed.

6. Riparian Area Protection—We appreciate that the bill incorporates the PacFISH and INFISH riparian buffers. We do have some concerns because as implemented now, PacFISH and INFISH currently allow some harmful activities in sensitive riparian areas. Further, the extent of riparian areas on the landscape is arguably greater than PacFISH and INFISH provide. The buffers for non-fish bearing streams and perennial streams are generally inadequate to ensure the health and recovery of these systems. We suggest that this legislation start with PacFISH and INFISH as a floor with the opportunity to administratively expand riparian buffers under the recommendations of the science panel, make compliance with those standards mandatory, and incorporate the direction that has been provided by the NOAA Fisheries the Fish & Wildlife Service through existing biological opinions on anadromous and inland fish.

CONCLUSION

The passage of S. 2895 would mark a significant shift in management of Oregon's eastside National Forests. The Sierra Club believes it is important to codify interim rules in place since 1994 that protect large diameter trees and riparian areas. However, we believe this legislation's emphasis on mechanical entry into forests and maintaining mill infrastructure through sawlog production, combined with mandated annual acreage targets and removal of administrative appeals for what could become several years, will undermine the important ecological restoration goals this bill contains.

We believe that amendments to S. 2895 to address the issues we have raised in our testimony, including the removal of annual acreage mandates, the retention of administrative appeal rights, and the more explicit incorporation of existing eastside science will go a long way towards addressing our concerns.

Senator WYDEN. Thank you, and I'll have some questions in a moment.

Mr. Woodward, let me begin with you, and for you and Mr. Williams, you know, you all obviously have significant reservations about the bill. What I want to do is just see if I can get a few facts on the record, because, you know, certainly reasonable people can differ on a variety of issues, but I think facts are still stubborn things, and a fact is something that I think we ought to get on the record where it exists.

Now, Mr. Woodward, you say in your written testimony that you found no one from industry that supports the bill.

Mr. WOODWARD. That's correct, I have——

Senator WYDEN. But the regional manager from Boise Cascade sat 6 inches from where you sit, on the last panel, and said he supports the bill.

Mr. WOODWARD. That's correct, but he spoke before me. I have never spoken to the man before in my life. His saw mill is a long ways from the 6,000 mill work jobs of the people that I've been speaking to.

Senator WYDEN. OK. The American Forest Resources Council, that's the organization that represents the majority of the industry here in Oregon, has been on the record as supporting this bill for quite some time. They've participated in the discussions, they went to the press conference on December 19th, they've been working very closely with us, this has been widely publicized, and I just looked at your written testimony where you said nobody from the timber industry supports the bill.

Mr. WOODWARD. No, I said I hadn't spoken to anybody from the timber industry that supports the bill.

Senator WYDEN. OK. Perhaps you might want to speak to the fellow in the second row, John Schelk.

Mr. WOODWARD. I tried calling John, he wasn't available.

Senator WYDEN. OK.

Mr. WOODWARD. The record will verify that.

Senator WYDEN. OK.

Mr. WOODWARD. But, the AFRC, what they say officially may not be what they say off the record, as well. I mean, there is that possibility.

Senator WYDEN. I guess so.

I have never really run into something quite like this, as chairman of the subcommittee where this is so much documented, on-the-record support from the timber industry, and then have a witness come and say, "Nobody from the timber industry supports it," but listen, you are entitled to your opinion, and I appreciate it.

Mr. WOODWARD. May I respond to that?

Senator WYDEN. Of course.

Mr. WOODWARD. OK, well, I appreciate you saying that I'm entitled to my opinion, but the people that I spoke to in the timber industry said you've never spoke to them. I mean, you're talking about 2—2 saw mills, here, that you have spoken to, but there's 6,000 people, potentially, that can be represented by the secondary millwork plants, you didn't come talk to me in my sawmill. I don't know, 2 other sawmill people that I am supposedly representing here said that nobody spoke to them about it, and they certainly are opposed to it.

Senator WYDEN. I'll welcome anybody's opinion on something like this, Mr. Woodward, but you're the one who came today and said there was no support from the forest products sector. There is. We've spend a great deal of time talking to folks across the political spectrum, the forest products sector, everybody else. Folks can say I'm guilty of a lot of things, but whether it's 550 town hall meetings, whether it's listening to folks at sessions like the staff, you know, conducted, we have made an effort to listen to folks.

We will keep the record open. Let me move on to another point and bring you into this discussion, if I could, Mr. Williams.

Because the organizations that support this legislation have extensive experience in the purchase of timber from Federal lands, I think it would be very helpful to have, on the record, how much timber you, Mr. Williams, have purchased from Federal lands, say, in the last 5, 8 years—and you, Mr. Woodward—so I can kind of put your experience with the Federal program in context.

Mr. Williams.

Mr. WILLIAMS. How much timber I have purchased from Federal lands?

Senator WYDEN. Yes. The last 5, 8 years.

Mr. WILLIAMS. I have not purchased any. I have sold timber to the sawmills, some of them that are supporting this, and all of that timber from our land, from as far away as California, to keep those sawmills going. I have hauled timber from our properties in Grant County and in from Allow County to keep to these sawmills. I have sold it, I have not purchased many—any timber from—one of the reasons that the sawmill that we did own had to close was because we couldn't purchase any more timber, because we couldn't compete with the sawmills that were there. That's part of the reason.

I have been involved in the timber industry, in the timber management and public land management all of my life. You're aware of that. I am well aware of what the timber industry situation is in Grant County.

Senator WYDEN. So, you haven't purchased timber from Federal lands in quite some time, but you've sold timber to private landowners?

Mr. WILLIAMS. I've sold timber to Malhere Lumber Company, D.R. Johnson Lumber Company, Collins Pine Lumber Company, Colombia Forest Products, and I think there was another one in Central Oregon that we sold timber to, and some to Boise-Cascade.

Senator WYDEN. I appreciate your candor, and the reason I'm asking the questions, again, is we've got a number of the timber organizations and companies that have had extensive experience dealing with the Federal lands in support of the legislation, and it's important for me to get on the record for those who have been in opposition to the legislation, what their experience has been on the Federal side. You have correctly described your experience as, essentially, being with the private sector, and I appreciate your candor.

Mr. WILLIAMS. Senator Wyden, just to clarify a little more, I am a part of the Blue Mountain Forest Partners Collaborative Group, and I have been working with them and other Forest Service advisory groups, as well.

Senator WYDEN. Very good.

Mr. WOODWARD. You asked me the same question, would you like me to answer?

Senator WYDEN. Of course.

Mr. WOODWARD. OK, I've been buying Federal timber sales since 1970. In the last several years, I haven't purchased much, because I've stepped aside and let the Interfours of the world, and the Malhere Lumber Companies of the world to purchase. I've logged for those folks, I've purchased logs from those folks for my chipping

operation, which would benefit—if this plan went through just exactly the way you’ve got it set up—but it’s not going to help the forests. It’s not going to help the forests.

Senator WYDEN. So, just from ballpark, how much have you sold to the Federal Government or, what has been the——

Mr. WOODWARD. I don’t sell timber to the Federal Government.

Senator WYDEN. No, excuse me, the nature of your relationship with the Federal Government over the last 8 or 10 years.

Senator WYDEN. What I’m trying to do, of course, is try to make sure that I can compare your experience with that of people who——

Mr. WOODWARD. Sure.

Senator WYDEN [continuing]. Have worked on Federal lands extensively.

Mr. WOODWARD. Right. In the last 8 or 10 years, I’ve been asked by the U.S. Federal Government to go to foreign countries and help them with their bug infestation problems, so I feel that I am qualified to speak here today.

I’ve dedicated my time in the United States dealing with problems on my own land that are created by the problems that are next to me on National Forest Lands that aren’t being managed. But, as far as—I’ve logged several timber sales every year over the last 8 years. Actively logging a timber sale right now, and I am purchasing logs from other purchasers, and from the stewardship contracts that are ongoing on Federal lands.

Senator WYDEN. Gentlemen, I don’t have any other questions for either of you. Obviously, we’ll hold the record open.

Actually, Mr. Williams, I want to give you a chance—you’re on the Grant County Public Forest Commission, what is your hope with respect to the Grant County Public Forest Commission? Would you like to see them run the Federal Forests, or tell me, if you would, what’s your hope with that organization?

Mr. WILLIAMS. My hope, as being as part of the Grant County Public Forest Commission is to see the forests of Grant County, the forests of Eastern Oregon to be managed in a resilient and—fashion, providing a sustainable, predictable, and level supply of forest products to the industries and the infrastructure of our community to keep our communities alive. That’s what we want. We want good management of our National Forests.

Senator WYDEN. OK. Thank you.

Let’s go to you, Mr. Maluski. The legislation calls for restoration of damaged forests and streams and wildlife. Now, in contradiction to your statement, it does not call for a tripling of logging levels, but an increase in the acreage managed for restoration. In many cases, of course, restoration treatments can supply wood products. Is it the Sierra Club’s position that no logging ought to occur as part of restoration?

Mr. MALUSKI. No, that’s not our position, Senator.

Senator WYDEN. But then, tell me what the organization’s position is.

Mr. MALUSKI. I guess I would put it this way. Part of the challenge that we see in Central and Eastern Oregon—and I’ll refer back to some of the comments of some of the other panelists. We often hear very large numbers put out there, 9.5 million, 13.5 mil-

lion acres that are at risk. I think the challenge is, is that we need to learn how to prioritize where are the most important places, and what are the most important types of things to be doing.

From the Sierra Club's perspective, the mechanical work really should start in the wild and urban interface, because it's of utmost importance to us that we are protecting communities at risk of fire.

You know, we have worked on projects like the Sisters Area Fuel Reduction which the timber industry appealed in order to get that project to a good place so we could support it, and help protect the community of Sisters.

So, in terms of mechanical entry, that's where we think we should start, and we should prioritize our efforts.

More broadly speaking, we work on projects all of the time where we, at the end of the day, timber is moving forward, but what we try to do is make sure that the environmental protections that should be in place are informed by the best available are upheld.

Senator WYDEN. So, you don't have any problem with the idea of the timber industry financially benefiting from restoration?

Mr. MALUSKI. No.

Senator WYDEN. Now, in the previous panel, the witnesses testified about various projects that they had been involved in. Professor Johnson testified as to the science behind the need to have more active, you know, management of the forest, but the Sierra Club has blocked many of these kinds of efforts, and the Sierra Club has actively worked to block some of these projects.

So, let's look at the Glaze project.

Mr. MALUSKI. Sure.

Senator WYDEN. The Glaze project, Mr. Lillebo discussed, it was developed collaboratively with a broad range of stakeholders and I'm going to walk you through exactly what happened, because I just found myself looking at this and saying, "I just can't sort out what the Sierra Club's role in all of this was."

You've got a collaborative project, broad range of stakeholders, every aspect of the project was developed, lots of adjustments made to the final project to get sign off from the players. My understanding is your field staff participated and signed off on the project.

Once the project was underway, your field staff then reversed course, objected to the project, and in effect said no to the years of collaboration and discussion.

Other examples include the Club's efforts that blocked much of the forestry program that had been planned on the Umatilla National Forest. So, my sense is, trying to get the Sierra Club to work specifically in these areas, particularly after years of collaboration and then to have reversed course, in my view is going to make it very hard to actually achieve the ideals that Tim Lillebo and many others in the environmental community correctly state are priorities in terms of restoration.

So, start with the latest project, and then go to the Umatilla Project. But with the Glaze Project, specifically, given the detail that we've picked up with your staff's involvement. After signing off, reversing, you know, course; how does that help foster the kind of collaboration that is in the public interest?

Mr. MALUSKI. Certainly, Senator, I'm happy to answer the question.

In fact, we not only had our staff involved in developing the Glaze Project, we had a lot of volunteers on the ground, as well. We have a very active volunteer base out here. So, we did work collaboratively on Glaze and ultimately decided not to appeal. So, we have not objected in a formal sense to that project, we certainly could have chose not to.

Ultimately, this project is only in its early stages of implementation. There was some concern——

Senator WYDEN. So, you're not objecting to the project now? I mean, Mr. Asante Riverwind is quoted as saying, "There is no science to take this tree," and it's clearly a signal that all of the other partners took that you were objecting. But today you are saying you're going to reverse course again, and you're not going to object.

Mr. MALUSKI. Let me clarify, because I was in the process of saying, we have not formally chosen to block the project. What—what I——

Senator WYDEN. Man, this sure looks like a pretty big deal to me, Mr. Maluski. We've got a headline, here, that says, "Split over tree thinning. Two conservation groups differ on habitat plan."

Mr. MALUSKI. It certainly, the Bend Bulletin——

Senator WYDEN. I guess if you're now saying that you're not objecting, that's good. But I sure hope that years of collaboration, when folks in your organization agree on something, still counts for something. Because I don't think very many stakeholders—if I was in the timber products industry, and I put all of this time and working with the Sierra Club and your guy signed off, and then he changed his mind, but then Mr. Maluski came to a Congressional hearing and said, "Well, we're really not objecting," somebody in the forest products industry is going to scratch their head and say, "What's going on?"

So, maybe you can sort this out for me.

Mr. MALUSKI. Sir, yes, I'd be happy to.

Senator WYDEN. Great.

Mr. MALUSKI. Let me, if you could just allow me to finish.

So, upon viewing some of the areas on the ground, there were certainly some concerns that maybe some of the prescriptions that had been outlined had not been followed properly, particularly with respect to ground distributing activities right on the edge of the meadow.

I think part of the challenge with the Glaze Project is it is in a very sensitive meadow and old growth area. So these are the types of issues that are more likely to occur when we're straying outside, you know, more previously managed ecosystems and going into some of these more sensitive areas.

We're actually spending a lot of time on the ground over the next month with Oregon Wild, to talk—to look on the ground about—and also with the logging contractor—to look at the project, moving forward.

I think that—I certainly can't speak for Mr. Lillebo, but there may be some concerns that they have that they're not articulating, as well, that we want to try to work together on.

So, we're certainly, you know, we're not intending to block the project, but we certainly feel it's our right to raise concern if we feel that a project is not implemented the way that we thought it was going to be.

Senator WYDEN. But, from a formal standpoint, you do not intend to object to the project?

Mr. MALUSKI. From a formal standpoint, certainly not.

Senator WYDEN. OK.

Then one last point on this Glaze issue, where Mr. Asante Riverwind was quoted as saying there was no science to take, you know, the tree. What science is the Sierra Club referring to that says you can't thin some trees over a foot in diameter in a dense second-growth pine stand? The reason this is a big deal is because Dr. Johnson spent a considerable amount of time doing research in this area, and feels that there's considerable science that makes the point the other way.

So, if you all in your organization say that there's no science to take the tree, I'd like to know what science you're referring to.

Mr. MALUSKI. Senator, I'd be happy to get back to you on that. We're actually preparing some materials on Glaze that we'd be happy to share with you as soon as they're ready.

Senator WYDEN. But when Mr. Riverwind was quoted in the paper saying there was no science to take the tree, what science was he referring to?

Mr. MALUSKI. Senator, if you look at your legislation, one of the things that it talks about is the ability to use the best available science actually to protect trees that are smaller than 21" in diameter. It's an option that is articulated in your legislation. This is the same exact science that we'd be looking at. In some cases, it is appropriate to protect smaller trees that are under 21" in diameter. So, I haven't been to that site on the ground, but certainly I think that there is science out there that calls for protecting smaller trees, as well. So, that's what—

Senator WYDEN. I'll hold the record open and I'd very much like to see the science that you all were talking about. Because there was science referred to in that article. So, at some point, we ought to be able to see what backs that up.

One other set of projects the Sierra Club has sought to block. These are the ones in the Malheur National Forest, the Damon Thinning Project, the Sierra Club's written comments state, "Indeed science research documents significant harm from commercial logging, and largely recommends against any commercial logging removal of trees and forest structure and mixed conifer." The Sierra Club objected to this project. So, what science were you all relying upon there to say that commercial thinning should not be done in eastside mixed conifer?

Mr. MALUSKI. Sir, I would have to have to get back to you on the Damon Project, in particular, because I'm not familiar with that.

Senator WYDEN. OK. So—

Mr. MALUSKI. You mentioned some Umatilla projects, I'm more familiar with those.

Senator WYDEN. OK. You want to expound on that?

Mr. MALUSKI. Certainly.

I think the Umatilla projects you were probably referring to were the Wildcat, Cobbler, and the third one is escaping my name at the moment. But, some of our concerns there relate to treatments that are in mixed conifer stands. Oftentimes what we find out here on the Eastside is the Forest Service takes science and lessons learned from dry, low-elevation ponderosa pine forests, and sometimes applies them inappropriately to higher elevation, mixed conifer forests where, as I articulated in my testimony, there's actually a lot of scientific controversy.

In addition, we've got issues, and some of these timber sales of unroaded areas outside inventoried roadless areas, but areas that certainly should deserve some higher level of protection. If, again, you look at the Eastside Scientific Society panel report of 1994, it calls for protection of ecologically significant roadless areas that are smaller than what you'd typically find in the roadless inventory.

So, you know, we have concerns about wildlife habitat and soils. Unlike the Westside, when we do a lot of temporary road—even temporary roadbuilding can have decades long impacts on watershed health and forest health and actually—and the wrong scenarios can actually increase fire risks, if you do the wrong types of treatments. So, these are the types of issues we're concerned about, we never block any project frivolously. As I've stated, we've negotiated, very successfully, with the Forest Service and gotten them to agree that we are using the best available science and some of the concerns we're raising and agree to make some modifications to projects.

Senator WYDEN. I've worked, as you know, very closely with you all over the years, Mr. Maluski, and I intend to keep, you know, doing that. I think you've done some very good work in a lot of areas. This is one where I think clearly, as it relates to collaborations and the kinds of projects, I mean, the Glaze project, in particular, struck me as one that should not have produced that kind of headline. It should not have produced that kind of headline, given all of the history of the cooperation. We need to have you at the table, working constructively with us, our door is open to any ideas and suggestions to improve this. I think that after, literally, decades in our part of the country, we are on the cusp of some history-making legislation.

The reality is, your organization wants to do a lot of restoration work, in Eastern Oregon and across this State, and frankly, around the country. If we can't pass legislation like this, there will be no mills to do the work. Zero. They are not going to be here.

So, we've got to find a way to work together, and I pledge my door is open, and Michelle's and our staff, we are interested in all manner of ideas and suggestions and for you, Mr. Woodward, and Mr. Williams, the same applies. I will tell you, you can probably sense it's a little hard to figure out how to move if somebody says, "Nobody in the forest products sector is in favor of a piece of legislation" when you've got all of these people on the record, but Mr. Woodward, your point is a very valid one, that if somebody says we haven't talked to them, on my watch I don't want anybody to feel they haven't been talked to so I'm going to take your names, and any that you have, Mr. Williams, and we'll talk to them and we'll pick up on any suggestions or ideas that they have.

So my——

Mr. WILLIAMS. It's appreciated.

Mr. WOODWARD. I very much appreciate it.

Senator WYDEN. My tradition is always to give the witnesses on the last panel the last word. So, I think it's especially appropriate, since this panel has clearly indicated we've got a little bit of heavy lifting to do to get this legislation exactly the way they would like it.

Mr. Williams, Mr. Woodward, Mr. Maluski, any last words?

Mr. WILLIAMS. No. I appreciate you allowing us to talk. You have my written testimony. I believe that the motivation was noble. I think the methodology expressed in this legislation is not going to result in the anticipated outcome. I think that funding is the key, funding of planning teams for our National Forests is the key, further restrictions is not.

Senator WYDEN. Mr. Woodward.

Mr. WOODWARD. I think with cooperation, the tools are already there to do exactly what this bill is intending to do, without all of the extra red tape that goes along with the bill.

Now, I realize both sides have not cooperated in the past, and I never thought I'd be on the same club as a Sierra Club member——

Senator WYDEN. But nothing has changed, you 2 still disagree. [Laughter.]

Senator WYDEN. That's the difference. That is, Mr. Woodward, that's the point in a nutshell. The previous panel had Mr. Insko from Boise-Cascade agreeing with Mr. Lillebo, something you haven't seen in 2 decades.

Mr. WOODWARD. Right.

Senator WYDEN. If we keep doing what we're doing, we'll have panels like this where you and Mr. Maluski are going to keep fighting each other in court. So, you made the point.

Mr. WOODWARD. Thanks.

[Laughter.]

Senator WYDEN. Mr. Maluski.

Mr. MALUSKI. Again, Senator, again appreciate you allowing us to testify today. I do think that some of the testimony you've offered, I really would urge you to take a look at some of the fixes we've suggested. We've provided your staff with some detailed language changes that would make us a lot more comfortable with certain provisions and, we think, again would, you know, we're concerned that we're putting a lot of eggs in the sawmill, you know, the logs to the mill basket. Historically, the Forest Service is not really very good at doing other types of non-timber oriented restoration work. It's a huge area to create green jobs in the woods, it's about economic diversification that can help weather the storm of the ups and downs of the price of 2 by fours or the lumber market and so hopefully we can look at some of those types of issues as we move forward.

Senator WYDEN. We're—and I'll just close by commenting on the week. We're putting a lot of eggs in a lot of baskets. I mean, that's what the visit to Ziakem and Boardman was all about, this wonderful cellulosic ethanol facility supported—tremendous support from the environmental community and the industry. That was

what Shepard's Flat was all about, world's biggest windmill. So, this has been a week focusing on a brighter economic future for our State. To a great extent, it is a brighter future and it is a greener future. It is a greener future that is going to feature collaboration with a lot of folks who nobody conceived 15, 20 years ago would possibly be working together.

So, what I'm going to do on my watch is every single day, show up early, go home late, and try to get as many of you good people to agree so we can get that brighter security, brighter economic security for each part of Oregon and leave nobody behind.

Thank you all, the subcommittee is adjourned.

[Whereupon, at 3:20 p.m., the hearing was adjourned.]

APPENDIXES

APPENDIX I

Responses to Additional Questions

RESPONSE OF JERRY F. FRANKLIN TO QUESTION FROM SENATOR WYDEN

Question 1. Dr Franklin, what is the science and your professional opinion on thinning in eastside dry mixed conifer?

Answer. I would begin by saying that—from the viewpoint of ecological science and natural resource values at risk—the eastside dry mixed-conifer forest is the forest type in greatest need of major restoration treatments, including thinning, of any forest type in the Pacific Northwest.

My explanation of this position is as follows.

First a definition of eastside dry mixed conifer is required. From the standpoint of ecological science, these are the forests that occur on sites characterized by the Douglas-fir and most of the White Fir and Grand Fir plant associations found east of the crest of the Cascade Range in Oregon and Washington. These forests are typically composed of multiple species of which ponderosa pine, white (in SE OR) or grand (elsewhere in E PNW) fir, Douglas-fir, western larch, and lodgepole pine are most important. Other species that may be present in eastern Oregon include incense-cedar and sugar pine. In contrast, forests on sites characterized by the ponderosa pine plant associations are generally dominated solely by that species. The forests on dry mixed-conifer sites are also generally denser and more productive than those found on sites where ponderosa pine is the climax species. There are, of course, moist temperate and subalpine forests found at higher elevations to which the following comments do not apply.

From the perspective of ecological science, the dry mixed-conifer forests have undergone the greatest modification of all of the eastside forest types as the result of modern human activities, including fire suppression. Factors that are responsible for this include their relatively high productivity and the presence of grand or white fir and Douglas-fir, both circumstances resulting in the rapid development of large contiguous expanses of dense stands with large amounts of ground and ladder fuels. Historically, such dense, fuel-loaded forests occupied a much lower percentage of the dry forest landscapes and occurred as smaller, discontinuous patches within landscapes that were dominated by other dry mixed-conifer and pine forests of much lower density and which were often dominated by a small population of large old trees.

It can be argued that there are more resource values at risk in the dry mixed-conifer forests and landscapes of eastern Oregon and Washington than in any other forest type in the region because of the dramatic changes that have occurred in these forests during the last century. For example, along the eastern slope of the Cascade Range, these forests provide most of the habitat utilized by the Northern Spotted Owl, as well as many other wildlife species, including game species, such as elk. These forests provide much of the protective cover for eastside watersheds, regulating the flows and sustaining water quality. The dry mixed-conifer forests collectively still contain large numbers of irreplaceable old-growth pine trees that are the structural and resiliency keystones of these ecosystems. All of these values are at risk of uncharacteristically large and severe wildfires, as well as insect outbreaks, in the highly modified dry forest landscapes.

Hence, in my professional opinion, restoration treatments of dry mixed-conifer forests, including mechanical thinning and prescribed fire, are of the highest priority in terms of the risks that exist to ecological and other natural resource values in eastern Oregon and Washington. This may seem counterintuitive to individuals who

would argue that—since many dry mixed-conifer forests have only missed 3 or 4 natural fire return intervals while many climax ponderosa pine sites have missed ten or more—the priority should be in the drier or more fire-frequent pine forests. What this fails to take into account is the greater productivity of the dry mixed-conifer sites and the presence of species, such as white or grand fir, that provide fuel ladders of extraordinary quality and quantity. They also fail to take into account the high risk of insect attacks in dense, dry mixed-conifer forests even if they escape intense wildfire. This risk is to both the pine and the fir components of the dry mixed-conifer forests, taking the form of tree-(and often stand-) killing outbreaks of defoliators, such as spruce budworm, in the case of the firs and accelerated bark beetle kill of the old pine component, as a result of the competitive stresses induced on the pine by the high density of firs.

These dry mixed-conifer forests actually dominate most of our eastside forest landscapes and, hence, provide most of the critical ecological services, including critical habitat for much of biodiversity. Large contiguous blocks of dense mixed-conifer forest were not the historical condition and are not sustainable as evidenced by the recent history of severe wildfire (e.g., B&B Complex on the Deschutes National Forest) and outbreaks of insect defoliators. Hence, aggressive restoration programs in dry mixed-conifer forest landscapes should have the highest priority for treatment, including thinning, in the opinion of Dr. K. Norman Johnson and myself.

These programs do need to be planned and implemented at the landscape scale and incorporate the retention of significant areas of untreated denser forest as a part of the landscape mosaic. An example of such an approach is the current proposal for retaining 30% of the dry forest landscapes in patches of 300 acres (+/-) as nesting-roosting-foraging habitat for Northern Spotted Owls within a matrix of restored dry mixed-conifer forest. In fact, the US Forest Service and US Fish and Wildlife Service have been encouraged to create an “A” team of scientists and managers to develop a comprehensive and coherent landscape-level plan for restoration of the entire dry mixed-conifer forest zone found along the eastern slopes of the Cascade Range within the range of the Northern Spotted Owl. Such an approach could provide a model for how to proceed in dry forest restoration elsewhere in eastern Oregon and Washington, since issues about the size and distribution of untreated blocks, for species such as the Northern Goshawk, require landscape-scale planning and implementation.

APPENDIX II

Additional Material Submitted for the Record

STATEMENT OF CAROLE HAGEN, WARRENTON, OR

I am very concerned about the impact of proposed national forest legislation—S. 2895—because it locks in costly and arbitrary annual acreage targets for damaging logging activity in our national forests in eastern Oregon, without providing protection for stands of old growth trees and unprotected roadless areas across eastern Oregon.

Setting annual acreage targets in the bill with an emphasis on logging and mechanical forest entry will lead to an unfunded mandate that will undermine the laudable restoration goals of this legislation.

Without clearer guidance, the Forest Service will continue to pursue large scale logging projects in old growth stands and unprotected roadless areas and rely on building dozens of miles of so-called 'temporary' roads, which can scar the landscape and harm water quality for decades.

This legislation should be amended to:

- Remove annual acreage targets and the emphasis on mechanical entry and sawlog production.
- Remove exemptions that allow logging of large diameter trees.
- Provide explicit protection for old growth stands and unprotected roadless areas from logging and mechanical entry
- Retain the public's administrative appeal rights.
- Ensure the creation of a diversity of restoration jobs, not just logging jobs as the bill is currently focused on
- Eliminate provisions that allow the Forest Service to sign 20-year contracts with private companies to remove biomass on public lands.

Thank you for taking the time to address these concerns.

STATEMENT OF DAN GALECKI, BEND, OR, ON S. 2895

My name is Dan Galecki. I own and maintain a small forestry consulting business, teach forestry at Central Oregon Community College, and am a Certified Forester from SAF.

I strongly disagree with the methods you are using to describe and define 'Old Growth'. Specifically, the strict usage of placing a size of 21 inches at DBH and larger to designate trees as Old Growth does not fit with every ecological and silvicultural situation every time. Similarly, placing a specific age on old growth, such as 150 years, does not fit for every stand of trees that occurs in every region in Oregon. My personal position is the same as stated from the local Central Oregon Chapter of SAF. Also I agree strongly with the testimony presented on June 4th, in Bend Oregon from Mark Webb, Grant County Judge, Canyon City, Oregon.

Lastly, Senator Wyden, I did not appreciate your condescending remarks and questioning of Craig Woodward, Woodward Companies from the last panel, during the last portion of the meeting. Perhaps Mr. Woodward did not perform all of his homework, and maybe he did not represent the timber industry at a large scale. In any case, he felt he represented the opinions and consensus of industry in our local region and should be recognized, and his statements welcomed to the debate. Also, during the questioning of Ivan Maluski of the Sierra Club, you did not entirely agree with his position, and were extremely particular and overly inquisitive about 'what science' GB was using and how he could back-up his statements. Yet you seemed to embrace and not interrupt Tim Lillebo's unscientific anecdote about some guy named 'Blonde' cutting timber decades ago in several eastern and western states. It was encouraging to listen to different testimonies, but the lasting impres-

sion is that the final decisions are already made and it is unlikely adjustments can be allowed.

Here is the following position of the Central Oregon SAF, and it is my position also. Thank You Senator Wyden for allowing all testimonies and debate on this important subject.

The Central Oregon Chapter of the Society of American Foresters includes field foresters, technical specialists, educators, and administrators who help manage much of the public and private forests in Central Oregon. The Chapter is a local part of the Society of American Foresters, the largest association of forestry professionals in the world. The Society of American Foresters supports and represents the forestry profession in advancing the science, education, technology, and practice of forestry.

Quick Points

- Central and Eastern Oregon foresters will be impacted by this legislation—our members work in and around these forests and have decades of experience managing forests, both public and private, in areas impacted by S. 2895.
- We strongly support the goals of S. 2895—to improve forest resilience, retain forest products infrastructure, and target large areas of National Forest land in Eastern and Central Oregon for active management
- Unfortunately the provisions in this bill will add process, cost and confusion to federal forest management—the opposite is needed
- The bill would hamper effective and meaningful forest management projects with arbitrary prohibitions on harvesting (for example) not based on science or site-specific information
- These prohibitions, though done with good intentions, could actually cause more harm than good by preventing much-needed management to prevent catastrophic wildfire or insect and disease infestations
- Without the full funding needed to implement this bill, projects are unlikely to be implemented. Work on the ground is needed as soon as possible in many eastern and central Oregon areas to protect forest values
- This legislation will complicate and increase the cost of federal forest management by requiring forests in Eastern and Central Oregon to be managed differently than forests in the rest of the country
- The legislation outlines a collaborative process and science panel, yet nothing in the bill prevents endless litigation of projects supported by a community and collaborative group

Detailed Points: Management of the National Forest System

S. 2895 creates rules that apply only to Forest Service land in Central and Eastern Oregon. The result is that National Forests, such as the Deschutes National Forest which straddles eastern and western Oregon, would be further divided into areas with different laws applying to different areas of the Forest. This greatly complicates and increases the cost of forest management. The Chapter leaders believe it would be far better to provide clearer objectives for the entire National Forest System and avoid regulating the site-specific means to achieve these objectives.

Diameter Limits

Though counter-intuitive to many, the prohibition of cutting trees greater than 21 inches in diameter in S. 2895 may actually prevent the healthy and resilient forest conditions desired by this bill. Chapter leaders know that a legal limit on cutting trees based only on diameter restricts the site-specific management of forests in the future. In Central Oregon a grand fir can grow to greater than 21 inches in diameter, and be off limits to cutting, in 60 years time. Grand fir has a low resistance to fire, but without being cut or burned will replace ponderosa pine in many areas while also dramatically increasing the fire risk to many forest stands. Placing larger grand fir off limits to cutting will promote the spread of this fire prone species and limit the growth and reproduction of ponderosa pine, a species more resistant to fire and disease.

Unscientific Definition of Old Growth

Redefining the term ‘old growth’ based on a single tree’s age and diameter rather than on the structure of a group of trees is problematic and not based in science. Current definitions of old growth are based mainly on a description of a forest’s “structure,” not just the size and age of individual trees. Rather, the accepted scientific definition of an old growth forest is a forest that usually occupies a late seral stage and is composed of a group of trees with variable sizes and spacing, with a multilayered canopy, and the presence of snags and downed logs. Even if all trees

within a group meet the bill's old growth standard, it does not mean they form a structurally diverse, late seral forest that would support old growth dependent species. Chapter leaders are concerned about legally designating individual trees as 'old growth trees' when those trees will not form a forest that has the characteristics of an old growth forest.

Advisory Panel

The Chapter's leaders are also concerned that the bill gives an appearance of scientific legitimacy by forming an advisory panel of scientists to review the rules created should the bill become law. Our concern is that the limitation on cutting trees greater than 21 inches in diameter and redefining old growth by the age and size of individual trees are not rules that are based in science. The Chapter foresters believe these potential rules are based on political compromise and that appointing a scientific committee to assess the success of rules that are not based on science is futile.

Funding

S. 2895 authorized \$50 million for full implementation. With the current budget deficit, it may be difficult to fully fund the bill. This could result in the science panel meeting and providing recommendations only to lack the funds necessary to plan and implement projects on the ground.

Recommendations

- Simplify the bill by removing arbitrary prohibitions and instead provide management objectives (such as creating an old growth stand)—foresters have the education and experience to design projects to move towards these goals
- Open the Forest Service bottle neck—reduce the process and red tape that makes projects cumbersome and expensive to plan and implement
- Allow collaborative projects to be implemented quickly and prohibit frivolous lawsuits from holding up projects
- Work on comprehensive federal forest reform

STATEMENT OF LARRY BLASING AND KING WILLIAMS, GRANT COUNTY PUBLIC FOREST COMMISSION

I attended both hearings on 2895. I listened to all witnesses and saw common approval on some points and places where serious questions raised by numerous witnesses make the Bill unworkable as drafted.

1. There is nearly universal agreement that significantly more acres need to be treated in order to regain forest health and retain the infrastructure that is essential to prevent an ecological disaster. While the Bill focuses on Eastern Oregon, the problem exceeds the area covered by the Gulf oil spill with similar loss to jobs and economic consequences. The Nature Conservancy testified as much as 500,000 acres per year need to be treated to catch up.

2. The hearing record exalts the cooperation between forest industry and conservation interests. Beyond those testifying at the hearings, there is little agreement since several industry members oppose the Bill and the Sierra Club made it clear that they oppose the parts of the Bill that the forest industry supports.

3. The Bill does nothing to reduce (other than short term) the abuses of the Equal Access to Justice Act that make it profitable for the Environmental Litigation Industry to litigate Forest Service management plans. The Sierra Club made it clear that they plan to continue appealing and litigating. Until there is a change in law to make litigation on equal risk to all parties, this Bill is meaningless. As an example, the League of Wilderness Defenders, Blue Mountain Biodiversity Project, Oregon Chapter of the Sierra Club and Grant County Conservationists recently objected to the Damon Wildland Urban Interface Project—signed by Karen Coulter and Asante Riverwind—after participating in the Blue Mountain Forest Partners (collaborative group) debate and agreeing on the project. Their statement states "Local conservation residents are still very wary of publicly participating in Blue Mountain Forest Partners." The legal opportunities for the environmental litigation industry will not go away under this Bill.

4. Even though Senator Wyden says he will do everything possible to secure funding, neither he nor Presidents Obama control the appropriation process and the probability of funding is unlikely. This means that upon passage of the Bill, there will be no money to fund the required provisions of law and that because it is law, money will have to be stolen from other projects, National Forests or

Regions. This may even stop existing projects that are nearing completion and have a high level of public acceptance.

5. The three scientists testifying universally rejected diameter limits as a method to retain “old growth”. They testified that there has been a 16% reduction in “Old Growth” since the year 2000. There has been no harvest of trees or 21 dbh since 1994. It is impossible to maintain large diameter trees by a harvesting limit based on dbh and no salvage wastes the highest values in the forest. Trees over 21 inches dbh will need to be harvested to protect the health of large old trees.

6. The Forest Service is ineffective and in internal gridlock. Firm direction must be given to force the agency to perform as required by law—Organic Act through NFMA. Any Legislation must reaffirm this basic mission.

7. Our local economies have suffered and continue to be at risk. We must have increased output of solid wood products to maintain, let alone increase, economic viability. Biomass utilization is an admirable objective but, it will not sustain itself without inclusion of solid wood products.

8. In the event of the passage of SB 2895, if a supplemental budget item does not occur and if real results are not realized in three years the Law must sunset and be deleted from all legal requirements.

9. The only thing that prevents the Forest Service from achieving the objectives of the Bill is bureaucratic inefficiency, lack of firm direction and lack of appropriated funds. If the \$50,000,000 appropriation for SB 2895 was given to the Forest Service until used, existing projects could be completed and the objectives of the Bill would be exceeded. All of this without codification.

STATEMENT OF JAMES E. NIELSEN, ON S. 2895

After a 30 year career with the U.S. Forest Service I retired as a Region 6 Certified Silviculturist. This position is basically that of an applied Forest Ecologist. I am very familiar with the ecology and management of the eastside forests covered by S.B. 2895 and have carefully reviewed the draft of this legislation. Following is my professional assessment of this bill.

First, I agree that legislation is needed to permit effective management of National Forests and those forests managed by the Bureau of Land Management. What is missing and needed in S.B. 2895 is a consistent national or regional (such as the western states) policy for the management of federal forests. While all different, these forests have many similarities that makes them compatible with such larger scale goals. These can then be made into forest specific management direction thru a program of expedited Forest (USFS) and District (BLM) land use plans. An important part of my training as a silviculturist was the strong emphasis on seeking out management direction from these plans and applying them to the site specific prescriptions I prepared.

Second, I am very concerned that this legislation contains site specific limitations on management practices. The most glaring example is the 21 inch diameter limit on tree harvest. From my training and 30+ years of experience this is counter productive to the development of healthy forests. This requirement is politically rather than biologically based. I have applied diameter limits as part of some of my silviculture prescriptions but they were based on stand examinations, management direction, my field assessments and long term stand management objectives. I understand that S. 2895 allows exceptions to the 21 “limit but this will require agreement from the collaborative group and/or the science team. My concern about this process is at what scale will they make these determinations—individual tree, stand, basin or Forest/District?. Suppose the collaborative group disagrees with the science team? This process adds another layer of analysis and paper work to the management planning process. Right now the Forest Service and BLM are drowning in analysis and procedures that prevents on the ground work from being accomplished in a timely, cost effective manner. To me the most effective solution is the development of Forest/District plans with management direction as above and then allow an interdisciplinary team and silviculturist make specific stand management decisions including harvest diameters.

Lastly, I am deeply concerned that federal forest management must seriously address the social/economic needs of eastside communities. I understand that there are statements to this effect in S.B. 2895 but to make this a formal part of this bill a change needs to be made to section 4 (a)(1) (General Forest Goals). I suggest adding a section (E) with a statement such as “to support the social/economic stability of eastside communities”.

Thank you for considering my input on this important legislation.

STATEMENT OF THE SIERRA CLUB, ON S. 2895

Please find attached and below supplemental materials related to questions asked of the Sierra Club by Chairman Wyden at the June 4 Field Hearing on S. 2895 in Bend, Oregon.

Regarding the science behind concerns articulated in the Bend Bulletin newspaper on the implementation of the Glaze Meadow project in the Deschutes National Forest. As discussed during the hearing, we are not blocking or planning to block the Glaze Meadow project. The vast majority of the project's implementation is supported by the Sierra Club, a fact not reflected in the Bend Bulletin article. Our concerns rest with a very small portion of the sale, in particular, in the implementation of mature tree removal within close proximity of the Glaze Meadow edge. Within the larger Glaze Meadow project, some of the focus is on wet edge ponderosa pine forests—where high moisture levels in the seasonal wetlands meadow support higher densities and structural complexity of ponderosa pine than dry forest locations. Our concerns is that in the Glaze project, the Forest Service applied dry ponderosa pine density formulas to moist ponderosa pine areas along the meadow edge and thus the project has logged a significant number of well established mature and older trees up to 21" diameter at breast high along the meadow's edge. Across 85% of the Glaze project, outside of the moist locations along the meadow and along a nearby creek, the Forest Service accurately applied dry pine density formulas. It is only within the wet meadow edge area—about 5% of the project, but containing some of the best wildlife habitat—that there are issues concerning logging of mature and old characteristic trees. It is unfortunate that the Bend Bulletin article discussed at the hearing did not reflect these broader issues, and hopefully these supplemental comments better highlight some of the basis for our concerns. We are working collaboratively with others, including Oregon Wild and the logging contractor, to address these concerns before remaining logging along the meadow's edge in old growth stands occurs this upcoming winter.

Regarding the science relating to our concerns over the appropriateness of logging in historically mixed conifer mid and higher elevation forests at projects such as the Damon project in the Malheur National Forest, and the Farley, Wildcat, and Cobbler Projects in the Umatilla National Forest, please find attached again the March 16 letter from eleven scientists active in the fields of western forest and fire ecology. This letter identifies key pieces of scientific information related to the management challenges related to Oregon's eastside, including mixed-conifer forests, and concludes with more than two pages of published scientific references relevant to these issues.

We have also attached information related to the Wildcat Fuels Reduction project on the Umatilla National Forest including both our complaint filed August 2009 before the US District Court in Portland, which identifies our core concerns with this project and which encapsulates the types of issues related to logging in roadless areas and mixed conifer forests we have seen on a number of projects in the Umatilla and Malheur National Forests in recent years. Accompanying this is the supporting Declaration of Dr. Richard Waring, Distinguished Professor of Forest Ecology, Department of Forest Ecosystems and Society, College of Forestry, Oregon State University, which discusses the Wildcat project and provides a list of supporting scientific references.

It is our view that the burden of proof is on the Forest Service to provide adequate supporting science for projects it decides to pursue on National Forest lands. To the extent that the Forest Service has not provided convincing scientific justifications for projects in Oregon's eastside national forests, or has failed to acknowledge scientific debate over some of its key assumptions, they have found these projects challenged by not only the Sierra Club, but a number of other organizations. Our goal is to hold the Forest Service accountable when they fail to use the best available science to justify projects that could have harmful and long-lasting impacts to watershed and forest health, risk to communities from wildfire, and the recovery of threatened and endangered species.

STATEMENT OF CHAD HANSON, PH.D., DIRECTOR AND STAFF ECOLOGIST, JOHN MUIR PROJECT, RESEARCH ASSOCIATE, PLANT & ENVIRONMENTAL SCIENCES DEPARTMENT, UNIVERSITY OF CALIFORNIA AT DAVIS

As scientists conducting research in the fields of forest and fire ecology, we feel compelled to provide input to Congress when proposed legislation does not accurately represent the current state of scientific knowledge. Some current bills, including the "Oregon Eastside Forests Restoration, Old Growth Protection, and Jobs Act of 2009" (the "Act"), sponsored by Senator Ron Wyden (D-OR), propose measures to

increase logging levels on national forests based upon the assumptions that the current levels and intensities of wildland fire and beetle mortality in these forests are “uncharacteristic”, are harmful to the forest ecosystems, and increased logging will reduce the extent or intensity of these natural processes. Because these assumptions are not based upon a sound scientific foundation, and because of the concern that these bills include annual logging-level mandates that might undermine existing environmental laws, we urge you not to support such proposals as currently written. Ecological considerations should guide what we do on our national forests, rather than setting logging targets independently of ecological considerations.

Below, we briefly outline some important current scientific information that should be reflected in any Act dealing with forests of eastern Oregon or elsewhere in the western United States:

- There is currently a significant deficit of large snags (dead trees) in Oregon’s forests relative to the minimum habitat needs of many native cavity-nesting wildlife species, especially in eastern Oregon (Donnegan et al. 2008). This Forest Service report, based upon thousands of field plots, concluded that large (over 20 inches in diameter) snags are “currently uncommon” in eastern Oregon, at only 1 per acre presently, and determined that “management may be necessary to produce a greater density of large snags” (Donnegan et al. 2008 [pp. 47-48]).
- Fire and insect-mortality are probably the most effective natural processes for providing the snags and large wood that are currently in deficit in these forests.
- Where snag densities are relatively higher, these areas do not tend to burn at higher severities (Bond et al. 2009).
- The scientific data contradicts the assumptions that, prior to fire suppression, wildland fire in eastern Oregon’s forests burned only at low-intensity levels and patches of high-intensity fire are somehow “uncharacteristic” or unnatural. We now know that forests of the intermountain west, including ponderosa pine forests, have burned at various severities historically, and high-severity fire is a natural part of this mix (Pierce et al. 2004, Sherriff and Veblen 2006, Baker et al. 2007, Hessburg et al. 2007, Sherriff and Veblen 2007, Klenner et al. 2008, Whitlock et al. 2008, Baker 2009).
- In the eastern Cascades, high-severity fire occurrence is very low, with a current (since 1985) rotation interval of 889 years, i.e., at current rates, high-severity fire will only affect a given stand every 889 years—well beyond the normal lifespan of the conifer species (Hanson et al. 2009, Hanson et al. 2010). Moreover, fires are not getting more intense in eastside forests (Hanson et al. 2009, Hanson et al. 2010), and overall fire occurrence is far below historic extent (Medler 2006). It is also apparent that recent levels of fire occurrence make it highly unlikely that fuel treatments could affect fire behavior even in the forest types that tend to burn most frequently (Rhodes and Baker 2008). There is no good evidence that current high-severity fire in eastern Oregon exceeds the natural range of variability.
- Fuel treatments do not always reduce fire severity in the relatively rare cases when fire affects treated areas.
- Fuel treatments are not effective in maximizing carbon storage relative to fire alone (Mitchell et al. 2009).
- Fire has numerous ecological benefits, even when it is high severity. Patches of high-severity create the forest and montane chaparral habitats that are some of the most ecologically important, highly biodiverse, and rarest forest habitat in our western U.S. forests (Hutto 2006, Noss et al. 2006, Swanson et al. 2010). Many rare and imperiled wildlife species native to eastern Oregon, such as the Black-backed Woodpecker, depend upon unlogged patches of high-severity fire for nesting and foraging (Hutto 1995, Hutto 2006, Hanson and North 2008, Hutto 2008, Swanson et al. 2010). High-severity fires also provide a bonanza of downed wood which benefits aquatic systems (Beschta et al. 2004, Karr et al. 2004, Swanson et al. 2010).
- Fuel treatments in many widespread forest types are likely to be ineffective in restoring natural fire behavior (Veblen 2003; Schoennagel et al. 2004; Noss et al. 2006; Baker et al. 2007).
- The Act’s diameter limit of 21 inches is excessive, and allows far too many mature, old trees to be removed unnecessarily.
- Extensive logging typically involves road activities, including the construction of “temporary” roads and landings which have negative impacts on watersheds and aquatic systems. The negative watershed impacts of so-called “temporary” landings and roads are not temporary, but persistent (Beschta et al. 2004, Karr et al. 2004).

- Many imperiled fish species depend on habitats that are affected by land use on public lands in Oregon (USFS and USBLM 1997). Many of these habitats are already widely degraded (Henjum et al. 1994). Additional degradation from extensive logging, elevated use and/or construction of roads and landings is likely to further imperil these fish species and increase the likelihood of extirpation.
- Remaining roadless areas are critical to biodiversity and larger roadless areas typically have the lowest potential for altered fire regimes, especially due to their location at higher elevations (Henjum et al. 1994). Such areas should be protected from logging.

Due to the foregoing, we urge that any legislation aimed at restoring forests on public lands include the following:

- Explicit statements that all activities must fully comply with existing environmental laws.
- Retention of citizen review provisions. As stated in Karr et al. (2004): “Managing public lands for the benefit of present and future generations is challenging—a process most likely to succeed in an open atmosphere that actively uses existing scientific and technical information and expertise.”
- Restrict fuel treatments only to areas where multiple lines of empirical evidence clearly indicate that the fire regimes have been altered and that there is currently more high-severity fire than there was prior to fire suppression. In such areas, limit thinning to small-diameter trees beneath the forest canopy. Ensure that treatments do not occur in systems where fire regimes have not been altered.
- Prohibit construction of new landings and roads. Require significant levels of permanent road decommissioning and closure prior to any fuel treatments.
- Retain all mature trees, including those that pre-date settlement (Baker et al. 2007).
- Significantly curtail fire suppression in areas where human infrastructure is not at risk. Curtail domestic livestock grazing in areas where it has contributed to fire regime alteration.
- Exclude treatments from roadless areas greater than 1,000 acres. These areas are scarce, biologically important, and serve as important controls for monitoring effectiveness of any fuel treatments.
- Require sound scientific analysis and disclosure of the potential ecological costs and benefits of fuel treatments, prior to initiating treatments.

We are happy to answer any questions about these issues. Please feel free to contact us.

OREGON CHAPTER SIERRA CLUB AND ALLIED CONSERVATION TIMBER SALE APPEAL SETTLEMENTS

(updated May 2010)

19 SUCCESSFUL APPEAL RESOLUTIONS 2006-2010 (SIERRA CLUB ET AL)

Deschutes National Forest: BLT (09), West Tumbull HFRA (09), Snow Fuels (08), South Bend HFRA (08), ODOT Pass Sale (06)

Ochoco National Forest: Upper Beaver (10), East Maury (08), Burns & Crystal Springs (08), Spears (07), Harvey Gap (07), Cougar Salvage (06)

Umatilla National Forest: Sunflower Bacon (06)

Malheur National Forest: Thorn-Egley-Crawford (08—the Thorn appeal resolution also settled two additional projects, Egley and Crawford), Balance (08), Dads Creek (08), Black Rock (07), Canyon Creek (06)

Resolution of appeal issues included:

- dropping units in unlogged roadless area habitat;
- dropping units in old growth habitat;
- dropping units in ecologically complex mixed conifer mid and high elevation habitat;
- dropping units in salmonid riparian area habitat and on steep slopes;
- dropping new roads including “temporary” new road construction;
- protecting all old characteristic trees regardless of diameter;
- employing 16” and 18” lower diameter cutting limits based on the best available science;
- switching some units to non-commercial thinning with 9” to 12” maximum diameter cutting limits based on the best available science;

- adopting provisions protecting wildlife habitat focal areas, including forest edges, rock outcrops, meadows, connective cover, increased basal area retention levels;
- requiring 15% to 25% of unit areas be left untreated as wildlife habitat refugia;
- requiring additional large downed logs and/or snags left per acre;
- requiring post-project vegetative recovery determination before livestock grazing can be resumed;
- protection of popular recreational and community trails;
- requiring pre-project implementation review and/or post project assessment;
- requiring the timely removal of project slash and debris.

STATEMENT OF MICHAEL DONNELLY, FIRENDS OF THE BREITENBUSH CASCADES, OR*

We the undersigned strongly oppose Senate Bill S. 2895, introduced by Senator Ron Wyden (D-OR), the name of which—the Oregon Eastside Forests Restoration, Old Growth Protection, and Jobs Act of 2009—belies its true effects. S. 2895 represents a concerted effort on the part of the timber industry and its political allies, with support from some not-for-profit organizations, to cripple essential environmental laws in order to increase logging across 8 million acres of publicly-owned forests—forests which have already been severely degraded by logging. This bill is the latest in a series of bills that increase logging on our national forests, weaken legal protections, and consign the trees from our national forests to be burned in wood energy plants all across our nation.

We oppose this and all other legislation that will increase logging on our public forests, whether federal, state, or local, especially when the “product” will be utilized as fuel for biomass-to-electricity plants or biofuel plants creating cellulosic ethanol. S. 2895 is unacceptable and cannot be fixed or improved by amendments, and we urge you to vote against it.

S. 2895 claims it will protect, restore and increase the old growth forest stands and trees, but offers heavy logging of these forests as the supposed magic elixir that will “restore” them. Logging is what caused the tragic degradation of these great eastside forests in the first place.

The only proven method of growing—or regrowing—natural old growth forest ecosystems is for natural processes—nature, not humans with chainsaws—to manage the forest—a process that takes centuries. The remaining primary old-growth forests on Earth are living proof of nature’s ability to grow forests hundreds or thousands of years old.

However, there is not a single example anywhere on Earth of a natural centuries-old forest “grown” by humans using chainsaws. Therefore, there are no scientific studies of these non-existent old-growth forests “restored” by chainsaws. This legislation’s assertion that using heavy logging will “restore” old-growth forests is without scientific foundation.

S. 2895 claims that the increased logging mandated by this bill will somehow mitigate the effects of climate change. Recent scientific studies (Public land, timber harvests, and climate mitigation: Quantifying carbon sequestration potential on U.S. public timberlands, Depro, B.M., et al, Forest Ecology and Management, 2007; Forest carbon storage in the northeastern United States: Net effects of harvesting frequency, post-harvest retention, and wood products, Nunery, J.S., Keeton, W.S., Forest Ecology and Management, 2010) have shown conclusively that forests which grow without logging grow more biomass, and subsequently sequester more carbon, than forests that are logged, and that it takes a newly-planted forest from 50-100 years to attain the level of carbon sequestration the logged forest was providing when growing. Further, another study (Peters, W. et al., An atmospheric perspective on North American carbon dioxide exchange: Carbon Tracker. PNAS, 2007) concluded that North American ecosystems, mostly forests, remove 0.65 Pg C/year, offsetting one-third of the country’s estimated 1.85 Pg carbon emissions. Compromising the capacity of forests is therefore equivalent to increasing emissions. Therefore, the increased logging mandated by this bill will not only increase forest destruction, it will decrease the amount of carbon stored by these forests, diminishing the ability of our public forests to combat global climate change.

However, this legislation goes even farther in contributing to global climate change. It instructs the Forest Service to take the wood logged from these forests and burn it in wood-energy plants. Nothing could possibly contribute more to global climate change than increasing logging on our national forests and then burning the wood in biomass plants. According to a recent study (Matera, Chris, Wood-Fueled

*Other signatures have been retained in subcommittee files.

Biomass Power Plants and CO2 Emissions, <http://www.maforests.org/MFWCarb.pdf> February 2010) wood-burning energy plants contribute greatly to global climate change. Using data from a permit application in Massachusetts and from the Department of Energy, the study concludes, "Overall, wood fueled biomass power plants emit about 50% more CO2 per MWh than existing coal plants, 150% more than existing natural gas plants, and 330% more than new power plants."

But there are also tremendous amounts of carbon released by the use of petroleum when logging and chipping the forests and the burning of gasoline used by the trucks that will make thousands of trips totaling thousands of miles transporting the cut wood fiber to the biomass/biofuel plants. Burning trees from our national forests in biomass plants is a net carbon-loss disaster for global climate change. A recent article (Searchinger, et al., Fixing A Critical Climate Accounting Error, Science, 2009) reveals that emissions from biomass burning are entirely uncounted, either under land use change or under smoke stack emissions from utilities. This failure in accounting has resulted in the claim that biomass burning is "carbon neutral" and led to a flow of public-funded subsidies into these biomass burning facilities. This accounting error must be fixed. Doing so will reveal that logging and burning of forest biomass is not a viable solution to climate change. The claim by this legislation that burning wood in biomass plants will reduce global climate change is no more than a disproven, unscientific fabrication.

S.2895 goes so far as to suspend all applicable laws in favor of biomass removal. In Section 12 of the bill titled, BIOMASS, the specific language reads:

(a) IN GENERAL.—Notwithstanding any other provision of law (including regulations) relating to the use of biomass energy, in accordance with each purpose and goal of this Act, and any applicable recommendation of the advisory panel, the Secretary shall take such actions as are necessary to further enhance the use of woody biomass in the covered area.

The area covered by this legislation is more than 8 million acres of public forestlands across Eastern Oregon.

S. 2895 also tilts towards commercial interests, stating;

On a determination by the Secretary that forest conditions, commercial interests, and an adequate supply from a combination of Federal and non-Federal sources indicate a viable economic supply and demand for establishing a regional biomass project, the Secretary may designate an area within the covered area in which—

- (A) the removal of biomass is necessary to restore forest health; and
- (B) a sufficient volume of material is expected to be available to support a 20 year-lifespan of capital investments for biomass use.

S. 2895 is honest in at least one respect, when it admits its purpose is to supply the wood industry with a guaranteed supply of wood from our federal forestlands. S. 2895 guarantees a minimum of 20 years of vastly increased logging to supply these newly constructed wood energy plants. This mandated amount of logging will devastate the very forest ecosystems that S. 2895 claims to be restoring. Biomass burning utilities require about 13,000 tons per megawatt per year, and transportation logistics require sourcing feedstocks from a limited distance (generally around 50 mile radius). Providing and maintaining sufficient feedstocks to biomass burning facilities is unlikely to be harmonious with the goal of forest protection and "restoration."

The stripping of our forests for biomass means that woody debris that previously had been left for mulch in the forests and which enriched the forest soil and provided essential habitat for biodiversity will now be taken away from the forests and burned. If this legislation and other bills like it proceed, our national forest soils will be stripped of nutrients and our forests will die of starvation.

S. 2895 clearly cripples environmental laws which have given our forests some level of protection, not only by unconscionable suspension of the laws, but also by rushing the normal environmental enforcement procedures. S. 2895 would effectively circumvent NEPA by having pre-made decisions come out of advisory committees, even though NEPA will ostensibly be followed. NEPA requires an objective analysis of alternatives before decisions are made. Under this process, in effect, the decision is made before the analysis, making NEPA a pro-forma exercise. The process is further tilted toward increased logging of these forests by the use of advisory groups made up primarily of paid employees of the timber industry and others who are forced to either agree with this increased logging program or be denied from participation. This disenfranchises the American people of our and our children's heritage, the national forests of Oregon—it is no less than grand theft and destruc-

tion of federal property. This bill is the equivalent of allowing a small number of people from New Jersey, subsidized by federal tax dollars, to dismantle the Statue of Liberty and sell it for scrap metal while claiming it is good for the economy.

S. 2895 claims that one of its goals is to protect large trees, trees larger than 21 inch diameter, and it even lists exceptions for protecting trees smaller than 21 inch diameter. However, S. 2895 gives all final authority, stripped of any legal check and balance, to the Secretary of Agriculture to determine what trees can be logged, rendering the supposed protections of trees of any size, including any and all large trees, completely meaningless. This legislation is a green light to demolish our public forests, even allowing logging of the giant old trees the bill is allegedly supposed to protect.

Roads are one of the greatest causes of forest degradation. S. 2895 will allow an unlimited number of new roads, including permanent roads, to be constructed.

A new scientific report (Bond, Monica L., et al., Influence of Pre-Fire Tree Mortality on Fire Severity in Conifer Forests of the San Bernardino Mountains, California, *The Open Forest Science Journal*, 2009) suggests that bark beetle outbreaks will not lead to greater fire risk, and that tree thinning and logging is not likely to alleviate future large-scale epidemics of bark beetle. The report's findings apply to millions of acres of lodgepole pine and spruce-fir forests across North America. This report completely contradicts the goals and unscientific claims of this bill that increased logging will reduce these naturally occurring events.

"Drought and high temperature are likely the overriding factors behind the current bark beetle epidemic in the western United States," said Scott Hoffman Black, executive director of the Xerces Society for Invertebrate Conservation. "Because logging and thinning cannot effectively alleviate the overriding effects of climate, it will do little or nothing to control these outbreaks." (Black, S. H., et al., *Insects and Roadless Forests: A Scientific Review of Causes, Consequences and Management Alternatives*, National Center for Conservation Science & Policy, Ashland OR, 2010).

S. 2895 will lead to hundreds of millions of dollars of additional subsidies to log our national forests at a time when Americans are saddled with a soaring national debt.

Since the rise of large scale civilizations around 8,000 years, over 80% of the Earth's forests have been either completely wiped out or severely degraded by humans. Logging by humans is the greatest threat to the survival of the remaining natural forests on Earth, yet this legislation will increase logging. All the verbiage in S. 2895 about so-called ecological forest restoration, watershed health, conservation, ecosystem function, carbon cycling, and scientific advisory panels are thin cover for a timber industry logging bill.

S. 2895 was written without public participation, contrary to the claims of some of the bill's supporters. It is undemocratic in conception and would also be so in implementation. Senate Bill 2895 is an environmental disaster-in-the-making for our national forests and an economic disaster for the American people and will contribute greatly to lost biodiversity and increased atmospheric carbon dioxide levels. We urge you to completely oppose it.

MIKE HAYWARD, CHAIRMAN, WALLOWA COUNTY BOARD OF COMMISSIONERS

Thank you for this opportunity to comment on S. 2895. First let me say that I appreciate the work of Senator Wyden and his staff in attempting to address the issues of forest health and community well-being in Eastern Oregon. I appreciate greatly that they recognize that a problem exists and that it needs to be dealt with quickly. Having said that I have concerns about this bill in its current form that I believe must be addressed before it moves forward.

The issue that is perhaps the most troubling is that the legislation calls for a \$50 million appropriation to carry out the work of the bill. There is no doubt that for the Forest Service to meet the requirements as outlined this money will be necessary but given the current state of the federal budget I question if it will be available.

The Forest Service finds itself in a perpetual planning, appeals and litigation cycle, with little work actually happening on the ground. We frequently hear about the use of "best available science" and yet we seem to want to manage our national forest by a consensus process. This bill would seem to expand on that concept with the inclusion of the advisory panels and collaborative groups. At some point, if we are to attain a healthy forested landscape, we have to allow the professional foresters to do their job.

It appears that the bill requires that before any tree, of any size, can be cut it has to meet a set of criteria as outlined in the bill. Given the size of the landscape

that the Forest Service is dealing with this is not possible. One could argue that I have read too much into this portion of the bill and I believe that this was not the intent, but given the past history of litigation there would appear to be an open field for potential lawsuits.

Lastly, I believe that we must recognize both a forest health and an economic reality. The Blue Mountain Forests (Malheur, Umatilla, and Wallowa Whitman) are currently engaged in forest plan revision. The proposed action references that sixty percent of the forested landscape is in need of treatment due to excess fuel loadings. The plan also acknowledges that the three forests have a net growth, after mortality, of 791 million board feet yet calls for an Allowable Sale Quantity (ASQ) of approximately 200 million board feet, with anticipated actual harvest being a fraction of the ASQ because of budgetary constraints. This level of harvest will not only fail to improve the stocking level but will actually increase the number of forest stands outside the historic range of variability.

The reality is that under current harvest protocols timber sales lose money and the Forest Service is limited in how much activity they can accomplish. The sale and removal of larger trees (greater than 16 inches) is necessary to make forest restoration work cost effective. Certainly not all, nor even most, larger trees need to be cut, but if we are unwilling to cut any larger trees I fear that the economics of thinning small diameter material will prevent significant work from happening on the federal land.

Again, thank you for the opportunity to comment.

STATEMENT OF ZANE G. SMITH, JR., RETIRED U.S. FOREST SERVICE REGIONAL FORESTER

I am pleased to offer testimony related to SB 2895 to restore forest landscapes, protect old growth forests, and manage national forests in the eastside forests of the State of Oregon, and for other purposes, the subject of your hearing in Bend, Oregon June 4. Although I applaud the effort of Senator Wyden and the various interests in breaking through the stalemate so adversely affecting the management of our National Forests, I have grave concerns about possible unintended consequences for the National Forest System (NFS). The proposed Bill has many positive provisions, as a matter of fact, the Forest Service under existing statutes is trying mightily to practice them now. I am sure you received valuable counsel on how some of these provisions can be strengthened to improve the outcomes.

My concern surrounds what I feel could lead to the fragmentation and eventual elimination of the National Forest System. I am a third generation career Forest Service retiree. My career led me through every line position in the Forest Service except Chief. I served in AZ, ID, OR, WA, CA and the Chief's office. So, I admit to having a bias, but we all know that the NFS, put together by President Theodore Roosevelt and many others, is the envy of the World and represents an extraordinary treasure for our Nation.

The management of the NFS is guided by a host of statutes dating back to the Organic Act of 1897 followed by literally hundreds of Acts into the 21st Century. The thought of overlaying this direction with Bills such as SB 2895 and others like Montana Senator Testor's, absolutely staggers the mind. My fear is that it lays the ground work for the demise of the National Forest System.

My plea is to keep these thoughts in mind and I urge the Committee to consider carefully how the existing statutes can be cleaned up and added to, thus applying up to date direction to the entire National Forest System. Thanks so much for your consideration.

Thank you for adding this to the Record.

STATEMENT OF TOM DAVIS, PE, UPPER DESCHUTES VOLUNTEER RIVER STEWARD, THE NATIVE FISH SOCIETY

These S. 2895 comments use the Deschutes and Ochoco National Forests as examples, but apply to all Forest Service and Bureau of Land Management land east of the Cascades, as well as all forestlands in the State of Oregon. We enthusiastically support S. 2895 but aquatic ecosystems must be given a top priority in the final bill. The important forest issues that S. 2895 and its implementation must address include:

- Erosion-Sedimentation Reduction
- Roads
- All terrain Vehicles

- Stream Temperature
- Wildfire and Fire Fighting
- Tree Removal
- Passage Barriers
- Instream, Riparian and Stream Corridor Protection

Erosion-Sedimentation Reduction—The most important issue is erosion from the thousands of miles of road prisms (cut, road and fill surfaces) in the National Forests. The roads also include hundreds of culvert passage barriers. This will become a more serious problem in the Deschutes and Ochoco National Forests with the re-introduction of steelhead, Chinook and sockeye, and the restoration of passage for bull trout to their spawning tributary headwaters. Riparian conditions are poor in many locations, causing stream temperature problems and exacerbated sediment delivery to streams.

Most of the soils are very erodible and range from coarse sand and gravel soils in the west side subbasins to predominantly fine grained soils in the Crooked River subbasin. In the west side subbasins the coarse-porous soils allow rapid infiltration, which often mitigates peak flow rates, resulting in long sediment delivery times to the main stems. In the Crooked River subbasin less infiltration occurs so peak flows are higher and much of the eroded clay and silt stays suspended and moves faster in the water column. Turbid or “muddy” streams are seldom seen in the Metolius subbasin where most of the eroded soil is pushed downstream by clear water as bedload, but “muddy” streams are common in the Crooked River subbasin.

A 2004 Forest Service (FS) Metolius watershed assessment update acknowledged the high erosion risk. <http://www.fs.fed.us/r6/centraloregon/projects/planning/major-plans/wa-metolius-update2004-summary.pdf>

The highest Metolius risk areas were found by the FS to be the headwaters of First Creek (shown running “muddy” in the Spring, 2009 photo by Mark Yinger), Jack Creek, Canyon Creek and Brush Creek. The assessment stated that “The Metolius River is spring fed, stable, sensitive to sediment—one of the most stable rivers in the world for its size, vulnerable to sediment because of the lack of flood events to flush gravels clean.”

The Metolius example and publications regarding the erosion of forest soils indicate that wildfires cause significant erosion. The soil disturbance caused by the fire fighting equipment likely caused more erosion and sediment delivery than the wildfires per se.

The two 2009 Mark Yinger photos illustrate the normal sediment delivery, i.e. bedload movement, in the westside subbasins. This unnamed Metolius tributary is between Lake and First Creeks. The photo on the left is during May and the water is running clear. The June photo on the right shows that the creek had been carrying significant amounts of bedload sediment and deposited some of it behind the culvert.

The east side soils, primarily in the Crooked River subbasin, are highly erodible but consist of fine grained silts and clays that, when eroded travel in the water and are easily visible and monitored as turbidity.

The S. 2895 essentials for reducing erosion and sedimentation from forest activities and projects include:

- No new roads except for projects that are essential for watershed recovery, or that will not cause soil erosion and sedimentation impacts on an ephemeral, seasonal or permanent channel.
- Maximum road-prism width limits that reflect the soils and slopes present, and are smaller/narrower on more erodible soils and/or steeper slopes.
- Accelerated decommissioning of non-essential roads to achieve road densities of < one per sq. mile.
- Performing subsoiling, or “tillage”, of compacted soils for road decommissioning or revegetation of disturbed sites in ways that eliminate the potential for transport of eroded soil from the site.
- Limiting the use of ATVs to roads suitable for two-wheel drive vehicles.
- Soil disturbance slope limits that are specific for the soils present, ranging from 15% to 30%. Steeper sites would require enhanced mitigation measures, for examples reduced weeks of exposure, higher levels of mulching and multiple rows of silt fence. No disturbance on slopes => 30%.
- Project and activity design that reduces the grading and soil disturbance area to a minimum.
- A time limit in weeks on the exposure of disturbed soils, with no carryover from one activity phase to the next, and requiring a disturbance-free period during high-risk seasons of at least four (4) months.

- Establishment of water management systems immediately after grading and soil disturbance begins.
- Interim controls including early mulching on slopes steeper than 5 percent, revegetation and temporary sedimentation traps for the 5-year storm recurrence interval runoff.
- Transitioning from natural to post-development/activity water conveyance and storage systems within one activity phase, or nine months at most.
- Out sloping or in sloping of roads with ditch relief culverts every 200 feet or less.
- Maintenance measures that ensure no rutting of the road surface and do not increase the fine material available for erosion.
- Minimal compaction and mitigation of all compaction not essential for long-term use of a road.
- Silt fences if soil disturbance is within 200 ft of an ephemeral, seasonal or permanent channel.
- Sediment catchments downgradient in rills and gullies prior to any soil disturbance.

Roads.—The Deschutes and Ochoco National Forests contain exceptionally high road densities. On the Deschutes, according to a March 2010 FS study, there are 8,120 miles at some level of maintenance. The Ochoco contains 3,240 miles. The Deschutes road density using the “maintained” numbers is 3.7 miles of road per sq. mi. The Ochoco density using the “maintained” numbers is 2.5 miles of road per sq. mi.

“Oregon Wild” did an assessment of roads in the forests and concluded that the numbers were: “Deschutes NF—9,784 miles of roads (about 3.9 miles of road per sq mile); and the Ochoco NF—5,400 miles of roads (3.6 miles of roads per sq mile).” To paraphrase Oregon Wild’s statement when the numbers were provided—The figures are from an analysis we did a few years ago. Our figures may or may not be close to USFS figures. If, for example, they put a berm on a road and it still appears to be a road, our analysis would include it as a road but theirs would not. Plus we may overestimate some and underestimate others.

A likely possibility is that the FS counted the road prisms that were maintained at some level, but Oregon Wild counted all road prisms regardless of maintenance or current use.

Road prisms are a major source of eroded sediment that is detrimental to the aquatic ecosystems. Some road prisms may erode less with maintenance that eliminates rills, but maintenance, particularly “blading” can bring new soil particles to the surface, which are subject to surface erosion. Sediment delivery rates during the road construction period and the first few years after construction are particularly high.

The “decommissioning” of roads, which is an essential component of watershed recovery, can cause erosion-sedimentation. Often “subsoiling”, sometimes called “ripping” or “tilling” is used to reduce compaction and/or encourage infiltration and revegetation during road decommissioning and to help revegetate soils that have been exposed or compacted. The FS photo shows a subsoiler.

A FS soils scientist stated in March 2010 email communication “I prefer to use the term subsoiling when referring to our Forest tillage program. A subsoiler differs from a ripper in that it has wings on the bottom of the shanks. The purpose of the wings is to lift and fracture the soil across the entire width of a compacted trail without mixing the soil horizons. Monitoring has showing that ripper shanks without wings do not fracture the entire width of the trail. Another important point is that subsoiling does not instantly restore the soil back to its un-impacted condition but instead sets up the conditions so the soil can rehabilitate at an accelerated rate compared to an area that is not subsoiled. Therefore avoidance of as much soil impacts as possible is still very important.”

All Terrain Vehicles.—The FS research on all-terrain erosion rates at various sites in the U.S. by Randy B. Foltz documents the exceptionally high erosion rates from all terrain vehicles. The rates were even higher than forest roads and agricultural lands. The graph above presents the findings and the research is described in: <http://forest.moscowsl.wsu.edu/enr/library/Foltz/Foltz2006e/ASABE2006e.pdf> ; and http://www.stream.fs.fed.us/news/streamnt/pdf/SN_04_07.pdf

Stream Temperature.—A February 2009 paper on stream temperature, riparian harvest and total harvest in a watershed states, “stream temperature increase was correlated with both the total amount of timber harvest in a watershed and the total amount of riparian forest harvest in a watershed.” This is important for understanding the significance of the level of logging in any watershed. The February, 2009 paper is “STREAM TEMPERATURE RELATIONSHIPS TO FOREST HAR-

VEST IN WESTERN WASHINGTON”, by Michael M. Pollock, Timothy J. Beechie, Martin Liermann, and Richard E. Bigley. <http://www3.interscience.wiley.com/cgi-bin/fulltext/121663614/PDFSTART>

Wildfire and Fire Fighting.—The watersheds of the Upper Deschutes have experienced extensive and damaging wildfires in the last decade. Wildfires and the fire-fighting equipment have particularly affected the Metolius subbasin. In 2 years, four times as many acres have burned than burned in the previous 100 years. From 1900-1999, 29,449 acres burned. In 2002 and 2003, 122,450 acres burned. This is presented by the FS Metolius Watershed map of five large fires from 2000 to 2003. The largest was the B & B fire.

The 2004 FS Assessment Update states: “There are elevated erosion risks associated with severely burned areas. . . . Ten debris flows (landslides) occurred in the Metolius Basin during an intense winter storm in 1996. Nine of the ten debris flows in 1996 were associated with managed areas where vegetation had been manipulated in varying degrees. Five older debris flows were discovered in the Highway 20 corridor and appear to be associated with a similar intense winter storm in 1964. Slopes exceeding 25% in areas of stand replacement fire have an elevated risk of debris flows within 3 years of the fire as tree roots decay and lose soil holding strength. Slope stability in these areas is not likely to return to pre-fire levels within the next 20 years, although returning shrubs and trees will help stabilize soil.” Surface/sheet erosion was likely also high, but much less visible.

Whether the damage occurs directly because of the fire in the overstory resulting in lack of protective cover and soil instability, the equipment used in suppressing the fire, or the damage to riparian zones, it's clear that wildfire in the Upper Deschutes presents a threat to our native salmonids.

Tree Removal.—The removal of trees, whether for thinning, biofuels or wood, presents the potential for damage to the aquatic ecosystems. Logging per se has been reduced in the Upper Deschutes, but biofuels and thinning projects present risks to the habitat required for native salmonids.

Passage Barriers.—The fish passage barriers involving road culverts are important and prevalent, particularly with the thousands of road miles in the two National Forests. These barriers are receiving attention from the FS and projects to provide passage merit support.

Instream, Riparian and Stream Corridor Protection.—According to the Forest Service “31% of Riparian forest areas burned at moderate to high severity” in the Metolius during the B & B Fire”. It's clear that forest activities and events affect riparian cover, which affects aquatic health. The stream corridor protection and the riparian methodology used in the “Glaze Forest Restoration Project” should be combined, optimized and applied on all forest projects where wildfire in the riparian zone could damage the vegetation or coniferous tree removal is essential for riparian health. The project is described at: <http://www.fs.fed.us/r6/centraloregon/projects/units/sisters/glaze/index.shtml>

Specific, quantitative criteria to prohibit disturbances in the stream corridor are essential and S. 2895 implementation should address this. Water quality, floodplain function and aquatic life protection should be provided through no-disturbance stream corridors, which will also provide important habitat for aquatic and terrestrial insects that provide food for fish and other aquatic life. Many species of birds, mammals, reptiles, amphibians, and invertebrates also require healthy riparian habitat for nesting, hiding and birthing cover, travel corridors, thermal refuge, and forage.

The floodplains, riparian zones and adjoining wetlands define the stream corridor. Maps are needed of all perennial, intermittent and ephemeral floodplains. Intermittent streams are defined as a stream which carries water a considerable portion of the time, but which ceases to flow occasionally or seasonally because bed seepage and evapotranspiration exceed the available water supply. Ephemeral streams are defined as a stream channel, which carries water only during and immediately after periods of rainfall or snowmelt. The PACFISH and INFISH requirements should be expanded to include these concepts and be included in S. 2895.

The floodplain maps can be determined by hydrologic analysis of the contributing watersheds using:

- HEC-HMS: <http://www.hec.usace.army.mil/software/hec-hms/index.html> or
- HSPF: <http://www.epa.gov/ceampubl/swater/hspf/> and a stream hydraulics model such as
- HEC-RAS: <http://www.hec.usace.army.mil/software/hec-ras/>

All planned and existing upstream tree harvest areas and areas altered or proposed for alteration from natural conditions must be included in the hydrologic anal-

ysis of the contributing watershed, including roads. Inventories and maps of wetlands and riparian areas are also essential.

STATEMENT OF RICHARD H. WARING, PH.D., CORVALLIS, OR

1. I am an ecosystem scientist with expertise in forestry and a number of related fields. I provide this declaration to explain scientific and technical deficiencies in the Environmental Assessment for the proposed "Wildcat Fuels Reduction and Vegetation Management Project" prepared by the U.S. Forest Service and published in March 2009.

2. On June 2nd and 3rd, 2009, I toured the Wildcat sale sites numbered 33, 34, 22, 79 and 133 with Karen Coulter, field coordinator for the Blue Mountains Biodiversity Project, and observed the forest composition including standing dead and fallen trees, as well as the herbaceous vegetation. Trees planned to be thinned were marked for cutting, allowing me to assess expected changes in stand structure and composition.

3. Although the proposed project may temporarily reduce the threat of wildfires, to be effective in the long term, much heavier thinning than proposed is required to reduce the danger of insect outbreaks and to conserve water in the ponderosa pine and mixed conifer types. The present plan lacks an assessment of the effects of selective thinning, whole tree harvesting, and slash disposal on nutrient availability and carbon sequestration.

4. In the long run, the chosen options for management fail to consider the effects of practices that will continue to simplify stand structure and composition, and thereby reduce biodiversity on the Umatilla National Forest. In addition, the Forest Service fails to disclose the need to ameliorate microclimatic conditions to foster the movement of species from their current environments to similar ones that are predicted to shift to higher elevations or out of northeast Oregon within the next few decades.

5. There is a general deficiency in the Environmental Assessment on how managed and unmanaged areas interact across the landscape. Specifically, the proposed plan does not recognize how attempts to maintain high populations of elk and cattle impact aspen groves, the role that roads play as a conduit for plant and animal migration, nor the fact that subalpine forests are adapted to large, but infrequent disturbances.

6. To explain these scientific and technical matters and to underscore what was omitted from the Wildcat Environmental Assessment, I draw on my experience and familiarity with the peer-reviewed literature. For this particular review, I include a few Forest Service publications that counter the proposed management options or summarize state-of-the-art knowledge. My evaluation is organized by management options applied to four forest types, followed by sections on the implications of proposed activities on biodiversity, the implication of climate change, and landscape interactions.

7. The range of vegetation on which activities are proposed include four broad forest types: dry ponderosa pine; moist, mixed conifers; cool and moist subalpine forests; and groves of aspen. On each of these types, the Forest Service has identified trees to cut, with the intention of disposing of slash by burning, by complete tree harvesting, and by extracting deadwood on the forest floor to generate energy.

DRY PONDEROSA PINE FOREST TYPE

8. The dry ponderosa pine is a forest type through which a ground fire historically burnt every decade or so, which limited the presence of young trees and species with thin bark. This type occurs on small pockets of shallow soil at mid elevations and more extensively at lower elevations, particularly on aspects exposed in the afternoon to direct solar radiation. Forest Service activities are aimed at removing most of the small trees that have established following years of fire suppression activities. They plan to introduce prescribed fires to mimic historical conditions.

9. Depending on how slash and biomass are disposed of, the plan is biologically sound, assuming sufficient standing dead trees are left to meet wildlife requirements and erosion is minimized during road construction and logging. The proposed practices, however, will reduce soil organic matter, which Jurgensen et al. (1997) consider a critical resource required to sustain forest health and productivity, particularly on drier sites.

10. At some of the sites, the density of large diameter trees that will be left following treatment is more than 50 per cent of the maximum basal area and

leaf area that can currently be supported. Additional thinning of larger diameter trees would be required to protect residual trees from being attacked and killed by mountain pine beetle during an outbreak and to accommodate climatic trends leading to increased natural mortality (van Mantgem et al. 2009). Moreover, residual trees need to be evenly spaced to reduce mortality from bark beetles (Larsson et al. 1983), which would be a major departure from historical conditions (Harrod et al. 1999).

MIXED CONIFER FOREST TYPE

11. The mixed conifer forest type is one where snowmelt has historically been adequate to recharge the soil profile fully each spring so that drought is normally not a problem (Waring et al. 1992). Grand fir, which establishes under the shade of the other species, has notably thinner bark, and because of this feature is easily damaged by fire. With the burning of slash, grand fir will become progressively less abundant in this type, even if large diameter trees were to be left standing. Less shade-tolerant trees with thicker bark will become relative more dominant, even with some selective removal, with implications that will be discussed later.

12. Experiments in this forest type in northeastern Oregon indicate that nitrogen limits growth and that defoliation of Douglas-fir and true firs by spruce budworm or tussock moth recycles this limiting element and foster increases in stand growth (Waring et al. 1992). Fire generally encourages the establishment of nitrogen-fixing plants, but it may take decades to centuries to restore the nitrogen capital (Jurgensen et al. 1997), particularly in soils lacking molybdenum, an essential micro-nutrient (Silvester 1989). The Environmental Assessment omits discussion on the loss of nitrogen and other elements associated with whole-tree harvesting and the burning of litter and slash that would affect site productivity and the ability of trees to withstand defoliation (Waring and Running 2007).

SUBALPINE FOREST TYPE

13. The subalpine forest type rarely burns (Schoennagel et al. 2007), but when it does, most trees are killed (Romme et al. 2006). Larch and lodgepole pine establish on bare soil following a stand replacement fire; Englemann spruce and subalpine fir seed in on duff once shade is provided. Ponderosa pine is not a major component of this forest type because it is subject to snow breakage (Waring 1969).

14. Thinning in subalpine forests creates unnatural conditions because most species are adapted to regeneration following a stand replacement fire. Although centuryold lodgepole pine can be thinned and residual trees made resistant to bark beetle attack, this requires that up to two-thirds of all trees be removed (Coops et al. 2009) and often results in accelerated windthrow (Veblen et al. 1991).

15. The subalpine type is usually nitrogen deficient (Waring et al. 1985, Waring and Pitman 1985, Waring et al. 1987) and requires considerable time to restore what is lost following fire (Jurgensen et al. 1997) because the main source of nitrogen in this area is atmospheric deposition (Fenn et al. 2003). The proposed plan would reduce the available of nitrogen and other nutrients, which is unlikely to improve tree resistance to insects and diseases. This needs to be disclosed, assessed and alternatives considered.

16. The Environmental Assessment does not adequately recognize the departure from historical conditions that the proposed thinning and fuel reduction project would create in subalpine forests. Young lodgepole pine stands generally do not require thinning because small diameter trees lack sufficient resources (phloem tissue) under the bark to support development of bark beetle larvae (Waring and Pitman 1985).

ASPEN GROVES

17. Attempts to perpetuate aspen by removing competing conifers are likely to prove inadequate. The reason for lack of aspen regeneration is an over abundance of browsing and grazing animals that consume most, if not all aspen regeneration and heavily impact many other species, as noted by Forest Service scientists Shirley and Erickson (2001). Fenced areas are required to allow aspen to regenerate without a reduction in elk and cattle populations. The Environmental Assessments lacks an explanation as to how one can expect to foster successful aspen regeneration while proposing to improve elk habitat without

fencing. It might also recognize the role that predators play in allowing aspen to regenerate even with large populations of elk (Larsen and Ripple 2003).

BIODIVERSITY

18. To be effective, the proposed thinning and fuel reduction program will need to be repeated at frequent intervals over wide areas. This will result in simplification of stand structure and a reduction in biodiversity. What are the implications? Forests of mixed ages and species composition are generally not subject to complete defoliation because native insects have discrete numbers of hosts. As a result, the growth of ponderosa pine increases when spruce budworm attack grand fir, and the reverse happens when Pandora moth attack pine in a stand of mixed composition (Speer et al. 2001). There are similar advantages to multi-species stands when it comes to diseases, as outlined in a recent publication on 'Managing insects and diseases of Oregon Conifers' (Shaw et al. 2009). The disadvantages of repeated thinning and slash disposal need to be considered particularly in the mixed conifer type.

19. A diversity of insects favors a wide variety of bird species, each with different requirements to complete their life cycles. Other animals, both resident and migratory, require a range of conditions not available in a forest with simplified structure and frequent disturbance. These tradeoffs are not adequately addressed in the Environmental Assessment.

CLIMATE CHANGE

20. Discussion of climate change is completely omitted from the Environmental Assessment. Yet, over the last half century, the climate has progressively become warmer throughout most of western United States (<http://climatewizard.org>). As a result, the snowpack melts more quickly, the growing season starts earlier, and vegetation is subjected to longer periods of drought. Although these changes in climate may not totally explain a doubling of tree mortality across the West in the last two decades (van Mantgem et al. 2009), there is no question that drought can cause an increase in tree mortality (Bigler et al. 2008). Less tree cover may reduce water use, but it will also encourage the growth of understory vegetation which contributes more fine fuels in a given season than do leaves shed slowly from dying trees (Veblen et al. 2000).

21. The trends in climate observed over the last 50 years are likely to accelerate. The Environmental Assessment should consider that peer-reviewed literature indicates that both western larch and Engelmann spruce are predicted to be unable to survive in most of northeastern Oregon by 2030 (Rehfeldt et al. 2006). If shifts in climate are recognized as highly probable, achieving historical conditions through the proposed management may be impossible. Certainly thinning cannot improve residual tree vigor during an extended drought (Kolb et al. 2007).

LANDSCAPE PERSPECTIVE

22. The Environmental Assessment does not consider the ramifications of management practices on areas not directly involved, such as the protected riparian zone and adjacent wilderness area. An enlargement of the protected zone along streams might be considered to maintain populations of species adapted to less disturbed conditions. It might also serve as a corridor, as do roads (Lugo and Gucinski 2000), for allowing species to move up or down slope in a changing climate. At the same time, a connected corridor of dense, multi-storied vegetation is a conduit for the spread of wildfire (Agee 1998). Alternatives that should be considered are large blocks of different aged forests, a shifting mosaic of age classes (Everett et al. 1994) and the advantages of letting fires burn in wilderness areas (Collins and Stephens 2007).

23. The management of National Forests to enhance carbon storage is under discussion with controversy over the relative losses from wildfires versus those associated with harvesting and fuel management. Recent publications from faculty at Oregon State University have clarified these issues, and the kind of management proposed on the Umatilla National Forests should evaluate the proposed plans in light of these findings (Campbell et al. 2007, Mitchell et al. 2009).

CONCLUSIONS AND RECOMMENDATIONS

24. The Environmental Assessment fails to take into account the longer-term implications of the proposed management options. Climatic conditions are

changing and these changes are predicted to accelerate. This makes using historical conditions a questionable benchmark. The dry ponderosa pine type may become more extensive, but if this happens, larch, Engelmann spruce and many other species may become rarer. To assess the impacts and efficacy of the proposed project, the Forest Service must disclose how repeated thinning and fuel reduction efforts will affect tree nutrition, because nutrient-stressed trees will become more susceptible to insect and disease attack.

25. Some modifications of the proposed plan are required, particularly for the mixed conifer and subalpine forest types where stand structure and composition will be highly modified. Even in the dry ponderosa pine type, where thinning and fire are logical management options, the spacing of trees may need to be much wider than proposed to increase resistance to bark beetle attacks and to adapt to trends in climatic conditions. To increase aspen groves will require a significant reduction in elk and cattle on the forest, or extensive fencing. The proposal to remove conifers will have little effect.

26. The Forest Service has not taken into account a landscape perspective in the Environmental Assessment or looked at how blocks of vegetation in different stages of development can be positioned on the landscape to reduce the spread of fire. Without taking a landscape approach, the Forest Service will not be able to reduce the threat from fire or maintain biodiversity in a changing climate.

27. The Forest Service would be prudent to consider broadening buffer strips along streams and roads to offer maximum protection for areas least likely to burn or to become drought-stressed, and best able to provide corridors for flora and fauna to adjust to on-going climatic change. Large blocks of mixed conifer and most of the subalpine forests would best remain untreated. In this way, benchmarks will be available for comparing response to wildfires and insect and disease outbreaks. The reserved blocks will also offer refuges to flora and fauna not adapted to frequent disturbance.

28. In summary, to meet the stated objectives of the Wildcat Environmental Assessment requires a much broader perspective. The Forest Service must disclose and consider the implications of climate change, the implications of simplifying stand structure, landscape interactions, and the losses of nutrients and organic matter associated with proposed harvesting and fuel reduction efforts.

STATEMENT OF WILLIAM H. SCHLESINGER, MEMBER, NATIONAL ACADEMY OF SCIENCES*

We write to bring to your attention the importance of accurately accounting for carbon dioxide emissions from bioenergy in any law or regulation designed to reduce greenhouse gas emissions from energy use. Proper accounting can enable bioenergy to contribute to greenhouse gas reductions; improper accounting can lead to increases in greenhouse gas emissions both domestically and internationally.

Replacement of fossil fuels with bioenergy does not directly stop carbon dioxide emissions from tailpipes or smokestacks. Although fossil fuel emissions are reduced or eliminated, the combustion of biomass replaces fossil emissions with its own emissions (which may even be higher per unit of energy because of the lower energy to carbon ratio of biomass). Bioenergy can reduce atmospheric carbon dioxide if land and plants are managed to take up additional carbon dioxide beyond what they would absorb without bioenergy. Alternatively, bioenergy can use some vegetative residues that would otherwise decompose and release carbon to the atmosphere rapidly. Whether land and plants sequester additional carbon to offset emissions from burning the biomass depends on changes both in the rates of plant growth and in the carbon storage in plants and soils. For example, planting fast-growing energy crops on otherwise unproductive land leads to additional carbon absorption by plants that offsets emissions from their use for energy without displacing carbon storage in plants and soils. On the other hand, clearing or cutting forests for energy, either to burn trees directly in power plants or to replace forests with bioenergy crops, has the net effect of releasing otherwise sequestered carbon into the atmosphere, just like the extraction and burning of fossil fuels. That creates a carbon debt, may reduce ongoing carbon uptake by the forest, and as a result may increase net greenhouse gas emissions for an extended time period and thereby undercut greenhouse gas reductions needed over the next several decades¹.

*Other signatures have been retained in subcommittee files.

¹J. Fargione, J. Hill, Tilman D., Polasky S., Hawthorne P (2008), Land Clearing and the Biofuel Carbon Debt, *Science* 319:1235-1238.

Many international treaties and domestic laws and bills account for bioenergy incorrectly by treating all bioenergy as causing a 100% reduction in emissions regardless of the source of the biomass. They perpetuate this error by exempting carbon dioxide from bioenergy from national emissions limits or from domestic requirements to hold allowances for energy emissions. Most renewable energy standards for electric utilities have the same effect because bioenergy is viewed as a renewable energy even when the biomass does not eliminate or even reduce greenhouse gas emissions. This general approach appears to be based on a misunderstanding of IPCC guidance². Under some scenarios, this approach could eliminate most of the expected greenhouse gas reductions during the next several decades.

U.S. laws will also influence world treatment of bioenergy. A number of studies in distinguished journals have estimated that globally improper accounting of bioenergy could lead to large-scale clearing of the world's forests³.

The lesson is that any legal measure to reduce greenhouse gas emissions must include a system to differentiate emissions from bioenergy based on the source of the biomass. The National Academy of Sciences has estimated significant potential energy production from the right sources of biomass⁴. Proper accounting will provide incentives for these sources of bioenergy.

○

²T.D. Searchinger, S.P. Hamburg, J.Melillo, W. Chameides, P.Havlik, D.M. Kammen, G.E. Likens, R. N. Lubowski, M. Obersteiner, M. Oppenheimer, G. P. Robertson, W.H. Schlesinger, G.D. Tilman (2009), Fixing a Critical Climate Accounting Error, *Science* 326:527-528

³E.g., J.M. Melillo, J.M. Reilly, D.W. Kicklighter, A.C. Gurgel, T.W. Cronin, S. Patsev, B.S. Felzer, X. Wang, C.A. Schlosser (2009), Indirect Emissions from Biofuels: How Important?, *Science* 326:1397-1399; Marshall Wise, Katherine Calvin, Allison Thomson, Leon Clarke, Benjamin Bond-Lamberty, Ronald Sands, Steven J. Smith, Anthony Janetos, James Edmonds (2009), Implications of Limiting CO₂ Concentrations for Land Use and Energy, *Science* 324:1183-1186

⁴National Research Council (2009), Liquid Transportation Fuels from Coal and Biomass: Technological Status, Costs, and Environmental Impacts (National Academy of Sciences, Washington, D.C.)